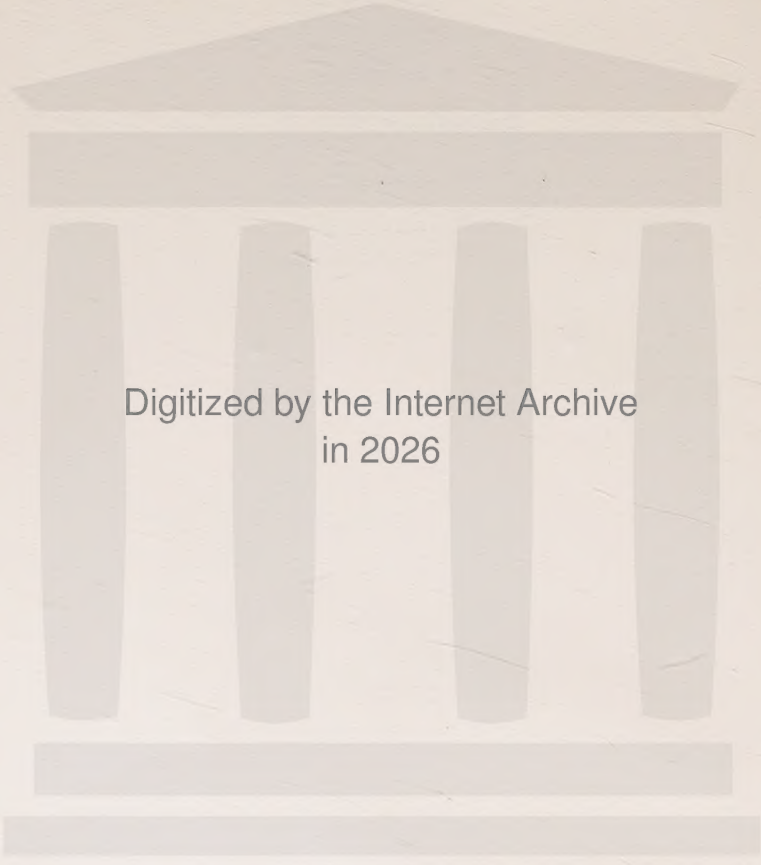
Dedication Exercises at University of Southern California

June 1921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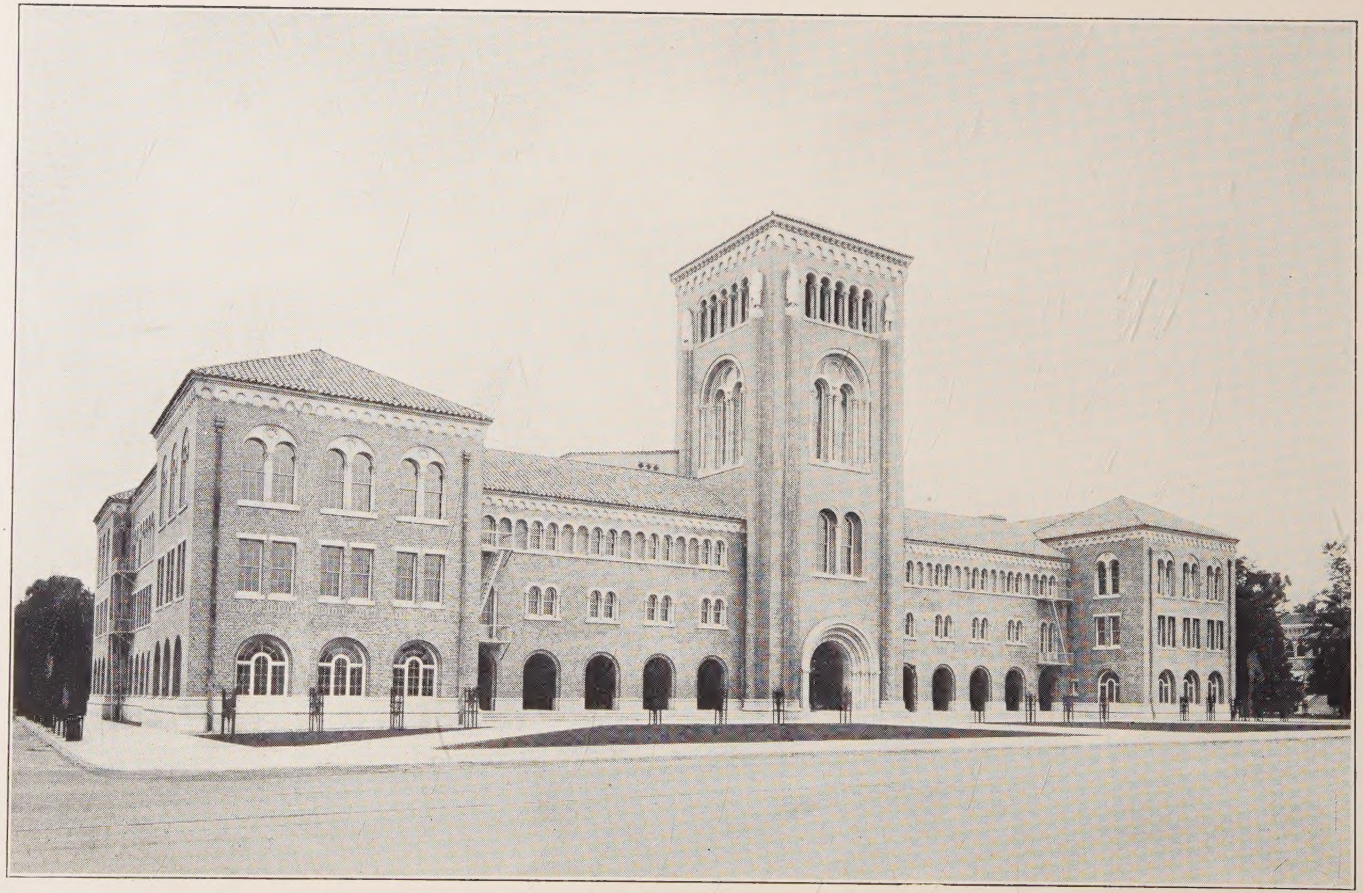
DEDICATION EXERCISES

AT

UNIVERSITY OF SOUTHERN CALIFORNIA



THE GEORGE FINLEY BOVARD ADMINISTRATION BUILDING AND AUDITORIUM

EXERCISES IN DEDICATION OF GEORGE FINLEY BOVARD ADMINISTRATION AUDITORIUM HOOSE HALL OF PHILOSOPHY AND STOWELL HALL OF EDUCATION UNIVERSITY OF SOUTHERN CALIFORNIA

Edited by
RALPH TYLER FLEWELLING

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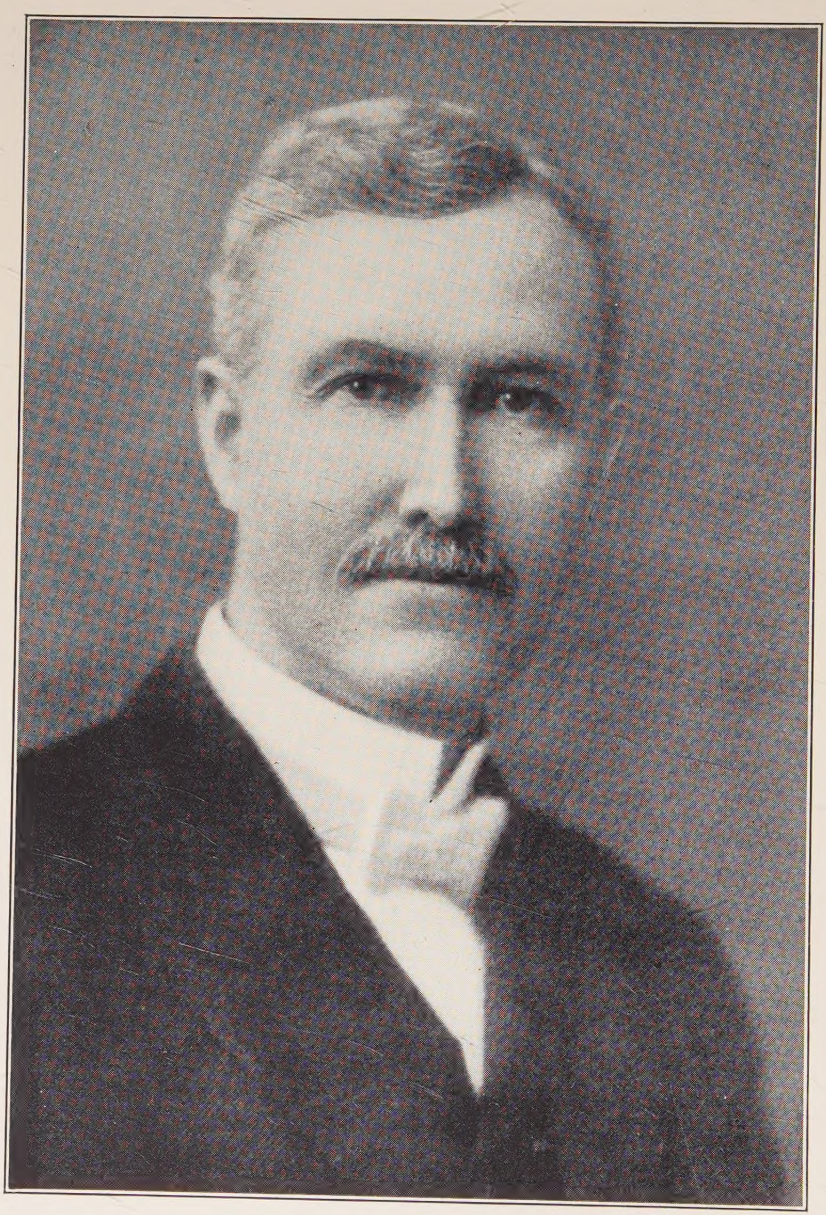

GEORGE FINLEY BOVARD

Dedicated to

GEORGE FINLEY BOVARD

who made the greater

University of Southern California

an accomplished fact

Committee on Dedication

Bishop Adna Wright Leonard, *Chairman*
President George Finley Bovard
Ernest P. Clark
Ralph Tyler Flewelling, *Secretary*
Ezra A. Healy
Rockwell D. Hunt
Merle N. Smith

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EDITORIAL PREFACE

So SIGNIFICANT an event as the dedication of the new great administration building of the University of Southern California, first unit of a greater University group, seemed to require enduring record.

Many leaders in the educational world participated in the exercises and their addresses demand a wider hearing than that of those immediately present.

Unfortunately provision had not been made in advance for a stenographic record, so that only those addresses appear for which manuscripts or abstracts had been prepared. Even though incomplete, it seemed good to present in book form such materials as were available.

Acknowledgments are due to *The Personalist*, and to *The Journal of Applied Sociology*, for matter first published therein.

THE EDITOR.

Main Entrance

LEARNING AND LOVING

RICHARD BURTON

July 21, 1921.

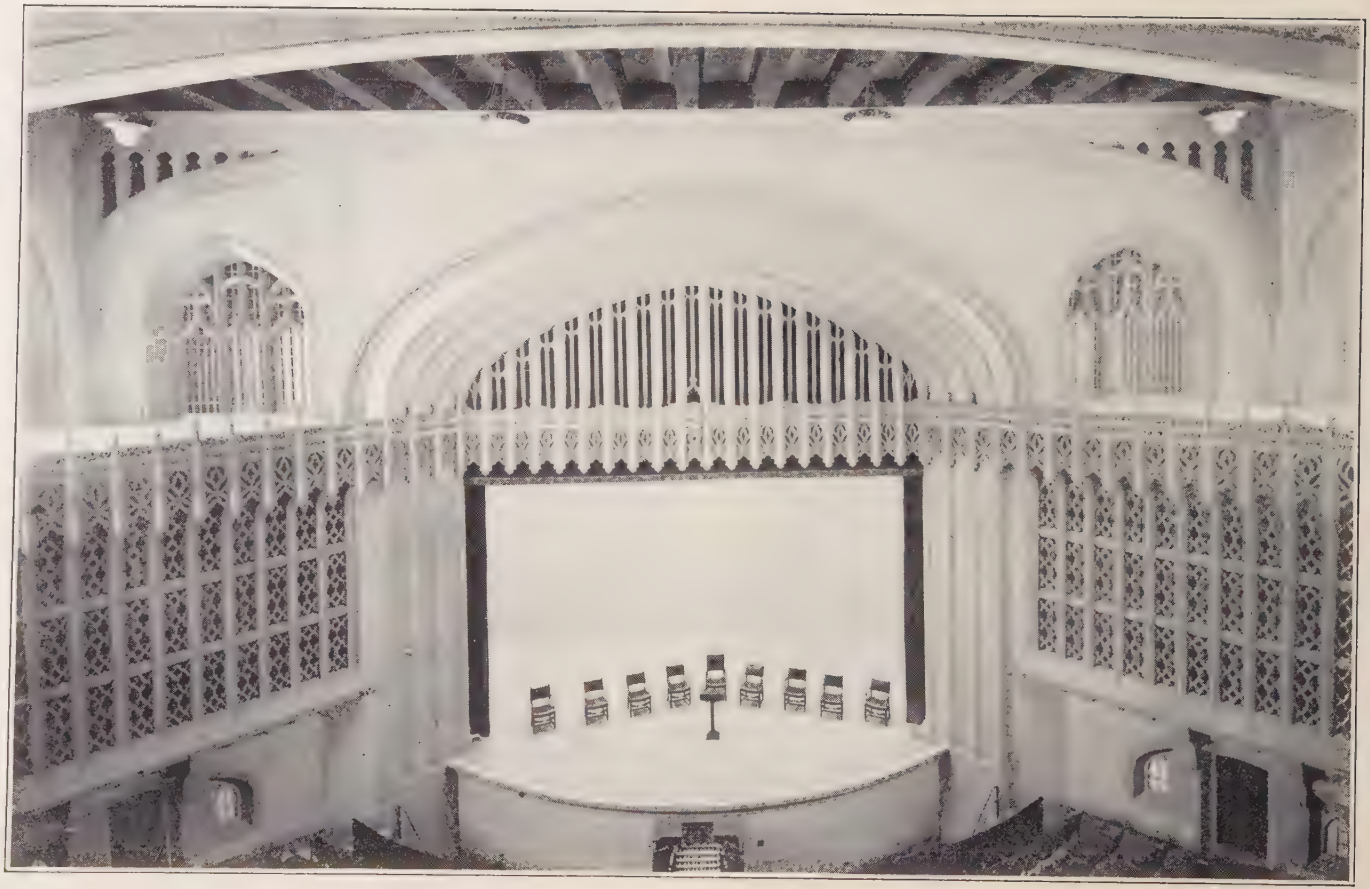
This is a day of days in Learning's book,
For here and now, the coarser things forsook,
We dedicate an hour of dream and prayer,
While messages from out the upper air
Teach us the truth: that life means learning well
To live: all human strife's a parable
Of man's upclimbing toward that ultimate height
Where Peace and Joy and Knowing choose a site
That shall o'ertop all darks of trail and tree,
And, playmates in the sun, eternally
Bring vision to the nations far and free.

Learning to grow, a tortuous task, in sooth;
The warped and twisted to be taught the truth
The good Greeks gave us many an age ago:
The golden mean: not more nor less, but so
And such that symmetry at last shall yield
The foison lost in the untended field.

Learning to understand: Ah, God, the loss,
The pain, the crucifixion on the cross
Of Calvary, wherever men go by,
Nor see each other clearly, eye to eye,
And heart to heart! What holocausts of flame
Have riven spirit from flesh; what sights of shame
Affronted the Most High; Learning must aim
To grow, and know; and then, Ah, yes, to love!
All wistful souls have learned the name thereof.

Learning to love! This is the sign and sum
Of all endeavor, in all years to come.
Such learning, as shall make us pupils meek
Of Him who bade us turn the other cheek;
Such loving, that we lack the heart to hate
Even the hateful, but do pray their fate
May gentler be: Such learning that, the hood
Which scholars wear shall symbol brotherhood:
Last lesson, loftiest, loveliest of them all
(Here be it lived, O Hall!):
That being wise is only being good.

Thou, California, lead the states in this
God-given dream, nor balk at any bars!
Flanked by the hills, by Nature's fruitage kissed,
Lapped by the sea and loved of all the stars,
Lead on, learning to love, loving to learn!
All lesser idols spurn:
Until in fulness of the coming days,
Thine outward beauty and thy inward, praise
The handiwork of God's appointed ways!



FRONT VIEW OF STAGE, BOVARD AUDITORIUM

GENERAL PROGRAM

PROGRAM OF BACCALAUREATE EXERCISES AND DEDICATION OF THE GEORGE FINLEY BOVARD ADMINISTRATION BUILDING

June 19th to 23rd, 1921

Sunday, June 19

10:45 A.M.

President George Finley Bovard, D.D., LL.D., *Presiding*

Voluntary, Dean Walter F. Skeele at the Organ.

Academic Procession, Visiting Delegates, Trustees, Faculty and Candidates for Degrees.

Processional Hymn, "Glorious Things of Thee Are Spoken."

Glorious things of thee are spoken,
Zion, city of our God:
He, whose word cannot be broken,
Formed thee for his own abode;
On the Rock of Ages founded,
What can shake thy sure repose?
With salvation's walls surrounded,
Thou may'st smile at all thy foes.

See, the streams of living waters,
Springing from eternal love,
Well supply thy sons and daughters,
And all fear of want remove:
Who can faint, while such a river
Ever flows their thirst to assuage?
Grace which, like the Lord, the giver,
Never fails from age to age.

Round each habitation hovering,
See the cloud and fire appear
For a glory and a covering,
Showing that the Lord is near!
Glorious things of thee are spoken,
Zion, city of our God;
He, whose word cannot be broken,
Formed thee for his own abode.

Apostles' Creed.

Prayer by Dean Ezra A. Healy, S. T. D.

Anthem, Festival Te Deum in E flat by Buck.

Choral Union of the University of Southern California,
Assisted by

Miss Lillian Backstrand, *Soprano*
Mrs. Virgie Lee Moore Mattoon, *Contralto*
Mr. A. A. Boynton, *Tenor*
Mr. E. J. Reunitz, *Bass*

Responsive Reading, led by President Bovard.

The Gloria Patri.

Lesson from the New Testament.
The Reverend W. L. Y. Davis, D.D.

Commemorative Offering.

Sermon, "Our Debt to the Past,"
The Reverend Bishop Adna Wright Leonard, D.D., LL.D.

Presentation of Keys to the President of the Board of Trustees by the Architect, John Parkinson.

Response.

Dedication of the George Finley Bovard Administration Building.

Hymn, "The Church's One Foundation."

The Church's one foundation
Is Jesus Christ her Lord;
She is his new creation
By water and the word:
From heaven he came and sought her
To be his holy bride;
With his own blood he bought her,
And for her life he died.

'Mid toil and tribulation,
And tumult of her war,
She waits the consummation
Of peace for evermore;
Till, with the vision glorious,
Her longing eyes are blest,
And the great church victorious
Shall be the church at rest.

Elect from every nation,
Yet one o'er all the earth,
Her charter of salvation,
One Lord, one faith, one birth;
One holy name she blesses,
Partakes one holy food,
And to one hope she presses,
With every grace endued.

Yet she on earth hath union
With God the Three in One,
And mystic sweet communion
With those whose rest is won:
O happy ones and holy!
Lord, give us grace that we,
Like them, the meek and lowly,
On high may dwell with thee.

Doxology.

Apostolic Benediction.

Sunday, June 19

3:00 P.M. FRATERNAL SERVICE

THE REVEREND BYRON WILSON, D.D., *Presiding.*

Organ Voluntary . . . Professor Arthur Blakeley.

*Anthem, "By Babylon's Wave" . . . . *Gounod*

Prayer by Professor Ralph Tyler Flewelling, Ph.D.

Fraternal Greetings by The Reverend James A. Francis, D.D.;
The Reverend Hugh K. Walker, D.D.

Hymn, "Faith of Our Fathers."

Faith of our fathers; living still,
In spite of dungeon, fire and sword:
O how our hearts beat high with joy,
Whene'er we hear that glorious word!
Faith of our fathers! holy faith!
We will be true to thee till death!

Our fathers, chained in prisons dark,
Were still in heart and conscience free:
How sweet would be their children's fate
If they, like them, could die for thee!
Faith of our fathers! holy faith!
We will be true to thee till death!

Faith of our fathers! we will love
Both friend and foe in all our strife:
And preach thee, too, as love knows how,
By kindly words and virtuous life:
Faith of our fathers! holy faith!
We will be true to thee till death!

Address, by The Reverend Carl S. Patton, D.D.

Anthem, "Jesus Only" . . . . . *Rotoli*

Benediction.

*Music by the Choir of the First Methodist Episcopal Church,
J. A. Van Pelt, *Director.*

8:00 P.M. EVENING WORSHIP

PRESIDENT BOVARD *Presiding.*

Organ Voluntary, Dean W. F. Skeele.

Processional Hymn, "O God, Our Help in Ages Past."

O God, our help in ages past,
Our hope for years to come,
Our shelter from the stormy blast,
And our eternal home!

Under the shadow of thy throne
Still may we dwell secure:
Sufficient is thine arm alone,
And our defense is sure.

Before the hills in order stood,
Or earth received her frame,
From everlasting thou art God,
To endless years the same.

A thousand ages, in thy sight,
Are like an evening gone:
Short as the watch that ends the night,
Before the rising sun.

The busy tribes of flesh and blood,
With all their cares and fears,
Are carried downward by the flood,
And lost in following years.

Time, like an ever-rolling stream,
Bears all its sons away;
They fly, forgotten, as a dream
Dies at the opening day.

O God, our help in ages past,
Our hope for years to come;
Be thou our guide while life shall last,
And our eternal home!

Scripture Lesson.

Prayer by The Reverend Will A. Betts, D.D.

Chorus, "Hark, Hark, My Soul!" . . . . *Shelley*

Choral Union of the University of Southern California,
Assisted by

Miss Lillian Backstrand, *Soprano*
Mrs. Virgie Lee Moore Mattoon, *Contralto*
Mr. A. A. Boynton, *Tenor*
Mr. E. J. Reunitz, *Bass*

Sermon, "Understanding of the Times," The Right Reverend Bishop William Bertrand Stevens, Ph.D.

Benediction.

Recessional Hymn, "Savior Again to Thy Dear Name We Raise."

Savior, again to thy dear name we raise
With one accord our parting hymn of praise;
We stand to bless thee ere our worship cease,
Then, lowly kneeling, wait thy word of peace.

Grant us thy peace upon our homeward way;
With thee began, with thee shall end the day;
Guard thou the lips from sin, the hearts from shame,
That in this house have called upon thy name.

Grant us thy peace, Lord, through the coming night,
Turn thou for us its darkness into light;
From harm and danger keep thy children free,
For dark and light are both alike to thee.

Grant us thy peace throughout our earthly life,
Our balm in sorrow, and our stay in strife;
Then, when thy voice shall bid our conflict cease,
Call us, O Lord, to thine eternal peace.

Monday, June 20

10:00 A.M. DEDICATION OF THE JAMES HARMON HOOSE HALL OF PHILOSOPHY

PROFESSOR RALPH TYLER FLEWELLING, PH.D., *Presiding*

Invocation, The Reverend Benjamin D. Snudden, A.M.

Philosophical Address, "The Mission of Philosophy,"
Professor John Wright Buckham, D.D.

Dedicatory Addresses,

1. "Doctor Hoose as Colleague,"
Professor Rockwell D. Hunt, Ph.D.
2. "Doctor Hoose as Teacher,"
President Tully C. Knoles, D.D.

1:10 P.M. CONFERENCE OF THE SOUTHWESTERN PHILOSOPHICAL ASSOCIATION.

PROFESSOR B. C. EWER, PH.D., of Pomona College, *Presiding*

Paper, "Values as Dogma in Philosophy," Wilbur Harry Long, Assistant in Philosophy, University of Southern California.

Paper, "The American Point of View in Philosophy," Doctor Ewer.

Paper, "On Logic," Dr. E. C. Moore, Director, Southern Branch, University of California.

Discussion.

3:00 P.M. POLITICAL SCIENCE CONFERENCE.

PROFESSOR ROY MALCOM, PH.D., *Presiding.*

Address, Professor Lindsey Rogers, Ph.D., Department of Political Science, Harvard University.

Address, "The Established Order and the New Disorder," Professor James Morton Callahan, Ph.D., Department of History and Political Science, West Virginia University.

8:00 P.M. ALUMNI NIGHT.

HAROLD FREEMAN, '16, *Presiding.*

Annual Alumni Address, "The New Individualism,"
The Reverend William S. Bovard, '88, A.M.,D.D.

Tuesday, June 21

10:00 A.M. DEDICATION OF THE THOMAS BLANCHARD STOWELL HALL OF EDUCATION

PROFESSOR LESTER B. ROGERS, PH.D., *Presiding*

Educational Address, "The Effect of Changing Conceptions of Government upon Education," by the Honorable Will C. Wood, A.M.

Dedicatory Addresses,

1. "The Work of Doctor Stowell,"
   Professor Emory S. Bogardus, Ph.D.
2. "A Personal Appreciation of Doctor Stowell,"
   Dean Ezra A. Healy, S.T.D.

11:00 A.M. EDUCATIONAL CONFERENCE:

What May be Done to Understand the Intellectual and Social Attitude of High School Graduates?"

1. By the College:
   Doctor Harry N. Wright, President Whittier College.
2. By the High Schools:
   Mr. Merton E. Hill, A.M., Principal of Chaffee Union School and Junior College, Ontario.

11:30 A.M. Round Table Discussion

3:00 P.M. EXERCISES IN RECOGNITION OF DELEGATES

DEAN ROCKWELL D. HUNT, *Presiding.*

Delegates, guests, faculty, alumni and senior classes met at the Old College and marched to the Auditorium in a body. (Seats were reserved for all in academic costume.)

Piano Prelude.

Invocation.

Roll Call of Delegates.

Responses:

On behalf of the State:

His Excellency the Governor of California, The Honorable William D. Stephens.

On behalf of the State Board of Education:

President Ernest P. Clark, A.M.

On behalf of the Los Angeles City Schools:

Superintendent Susan M. Dorsey, LL.D.

On behalf of Colleges:

President James A. Blaisdell, LL.D., Pomona College.

On behalf of Universities:

Professor Lindsay Rogers, Ph.D., Harvard University.

Poem: *"Learning and Loving."*

Professor Richard E. Burton, Ph.D., University of Minnesota.

4:30—6:30 P.M. ANNUAL RECEPTION by President and Mrs. Bovard in honor of the Senior Class, Alumni, Visiting Representatives, Faculty and Friends.

Tuesday, June 21

8:15 P.M. ORGAN RECITAL AND DEDICATION OF ORGAN

By EDWIN H LEMARE, *Municipal Organist of San Francisco.*

DEAN WALTER F. SKEELE, *Presiding.*

Prologue and Prayer of Dedication, by The Reverend W. E. Tilroe, D.D., Maclay College of Theology.

1. Prelude to "Lohengrin" . . . . . *Wagner*
2. Minuet in A . . . . . *Boccherini*
3. Sylvine (From La Frandole Suite) . . . *Dubois*
4. Sonata No. 6. . . . . *Mendelssohn*

INTERMISSION

5. a. "I'll Sing Thee Songs of Araby."

   b. "Loch Lomond."

6. Scherzo (From D Minor Symphony No. 2) . . *Lemare*
   (By request)
7. Improvisation on a Theme of three bars submitted by audience.
8. Concert Overture in C Minor . . . . *Hollins*

A complete description of the organ will be found in the Appendix.

Wednesday, June 22

SOCIOLOGICAL CONFERENCE

Arranged in conjunction with the
Southern California Sociological Society.

10:00 A.M. PROFESSOR EMORY S. BOGARDUS, PH.D. *Presiding*

Address, "Justifiable Individualism," by Professor Frank W. Blackmar, Ph.D., Dean of the Graduate School, University of Kansas.

11:10 A.M. DOCTOR BLACKMAR, *Presiding*

Address, "Social Problems in North Carolina," by Professor E. C. Branson, A.M., Litt.D., Head of the Department of Rural Economics and Sociology, University of North Carolina.

1:10 P.M. DOCTOR E. J. LICKLEY, *Presiding.*

Address, "Problems of Outdoor Relief in Los Angeles County," by Mr. D. F. McLaughlin, Assistant Superintendent Los Angeles County Charities.

Address, "Problems of Self-Government at George Junior Republic, Chino," by Professor George S. Sumner, Ph.D., Department of Economics and Sociology, Pomona College.

3:00 P.M. Ivy Day Ceremony by the Class of 1921, on the Campus.

Wednesday, June 22

8:15 P.M. ORATORIO: HAYDN'S CREATION

Presented by the CHORAL UNION *of the*
University of Southern California.

Auditorium of the George Finley Bovard Administration Building.
Horatio Cogswell, *Conductor.* Dean Walter F. Skeele, *Organist.*
Homer Simmons, *Pianist.*

CHARACTERS REPRESENTED:

Gabriel Eve	Soprano . . .	Madam Isabella Curl-Piana
Uriel	Tenor	Raymond Harmon
Raphael Adam	Bass.	Fred C. McPherson

The Choral Union wishes to express its appreciation to the following artists for their generous assistance in the choral parts:

Sopranos:
Miss Lillian J. Backstrand
Mrs. Annie Mottram Craig
Mrs. Ray Charles Arnold
Mrs. Arthur M. Perry
Miss Clara A. Seymour

Tenors:
Mr. W. L. French
Mr. Ewart D. Williams
Mr. Orrin Padel
Mr. A. A. Boynton

Bass:
Mr. Robert S. Maile
Mr. C. B. Peterson
Mr. E. Warren Mattoon
Mr. Edward J. Reunitz

Thursday, June 23

10:00 A.M. SCIENCE CONFERENCE

PROFESSOR ALBERT B. ULREY, A.M., *Presiding*

Address, "Research in the Citrus Experiment Station," Doctor J. T. Barrett, Director of the Citrus Experiment Station, University of California.

Discussion.

Address, "The Organism and its Environment," by Doctor F. B. Sumner, Resident Biologist, Scripps Institution for Biological Research, University of California.

Discussion led by Professor C. O. Esterley, Ph.D., Department of Zoology, Occidental College.

Discussion, "The Place of Science in Education," led by Professor Samuel Rittenhouse, Ph.D., Department of Zoology, University of Southern California.

and

Professor W. A. Hilton, Ph.D., Department of Zoology, Pomona College.

DEDICATION EXERCISES

Thursday, June 23.

3:00 P.M. ACADEMIC PROCESSION.

4:00 P.M. COMMENCEMENT EXERCISES AT EXPOSITION PARK

Musical Program *By the University Band.*

Processional March.

Commencement Procession.

The Marshals of the Commencement Exercises
Graduates
The Faculties of the University
The Trustees of the University
The Commencement Chaplain
The President of the University and the Commencement Speaker

National Hymn, *The Audience standing and singing.*

1 My country! 'tis of thee,
Sweet land of Liberty,
Of thee I sing:
Land where my fathers died,
Land of the pilgrim's pride,
From every mountain side
Let freedom ring!

2 My native country! thee,
Land of the noble free,
Thy name I love;
I love thy rocks and rills,
Thy woods and templed hills,
My heart with rapture thrills,
Like that above.

3 I love thine inland seas,
Thy groves of giant trees,
Thy rolling plains;
Thy mystic canyons deep,
Thy mighty rivers' sweep,
Thy mountains wild and steep—
All thy domains.

4 Our Father's God, to Thee,
Author of Liberty,
To Thee we sing:
Long may our land be bright
With Freedom's holy light,
Protect us by Thy might,
Great God our King.

The third stanza adapted by Dr. Henry Van Dyke

Prayer, *by The Commencement Chaplain,*
The Right Reverend William Bertrand Stevens, Ph.D.

Commencement Address, "The University: Italy to California"
Professor Robert W. Rogers, Ph.D., L L.D., Drew Theological Seminary.

Orchestra, "Morning Serenade."

6:30 P.M. ALUMNI BANQUET

Thursday, June 23

8:15 P.M. SECOND RECITAL BY EDWIN H. LEMARE

1. "Great G Minor" . . . . . *Bach*
2. Scherzo in F . . . . . *Hofmann*
3. Prelude to "Parsifal" . . . . . *Wagner*
4. Sonata in F (by request) . . . . . *Lemare*

(I. Maestoso. Piu animato. II. Largo. III. Scherzo. IV. Intermezzo. V. Finale).

The following extracts from a London critique, may be of interest:

Opening with a broad majestic phrase of sixteen bars, the Piu animato, or principal subject, immediately follows. This, with its peculiar syncopated rhythm, is a combination of the old and new in musical thought—the imitative passage being almost Mozartian. After the second subject (Cantabile) is announced, the movement continues in this quiet mood, without the usual "resumption" of the principal subject. Fragments are now heard of the slow movement which is to follow, and we are led directly into the Largo. This beautiful Largo is a welcome return to the old classic form. All is at rest. There is no attempt to be modern or "in style." The opening phrase in its pure simplicity, is an assurance that "God's in His Heaven, all's right with the world." Other peaceful subjects follow in quick succession. The brilliant and joyful Scherzo with its accents and life-like effects, is in happy contrast. A short Intermezzo, written in quite a questioning vein, precedes the Finale. The subject is treated fugally throughout—the only contrastive passages being a second subject and the opening subject of the Sonata, heard pianissimo in the guise of a chorale, played on the Vox Humana. On the last two pages of this interesting work, we have an imposing Allargando, in which preceding subjects are combined. This Sonata (published by Schott & Co., London) worthily sustains the fame of its composer, and will doubtless take its place amongst the best of classical Organ literature.

INTERMISSION

5. (a) "Minstrel Boy."

   (b) "Comin' Thro' the Rye."

6. Improvisation on a Theme of three bars submitted by the audience
7. Toccata in F (from 5th Symphony) . . . *Widor*

Friday, June 24

8:15 P.M. ANNUAL COMMENCEMENT CONCERT OF THE COLLEGE OF MUSIC

PRELIMINARY STATEMENT

By Wilbur Harry Long

HISTORICAL

In response to a felt need for an institution of higher learning in the great Southwest which should combine in its educational vision the trinity of culture, intellectual achievement, and Christian idealism, the university of Southern California was organized in 1879, and incorporated on August 8th of the following year. The first building was erected on the present campus site in 1880, and on October 4th of the same year the institution formally opened for instruction. The student body at that time numbered 9 in Liberal Arts, and 89 in the High School department. The growth of the University has been steady and, in recent years, remarkable. In 1900, 443 comprised the student body; in 1907, the enrollment amounted to 1905, which included 210 in the first summer session held by the University; while in 1912 the registration had reached 2696. For the year 1920-21 the student body consists of 4859.

The University of Southern California consists of twelve schools and colleges, as follows:

CAMPUS COLLEGES

Graduate School of Arts and Sciences, Liberal Arts, Theology, Pharmacy, Oratory, Commerce and Business Administration, The School of Education, The College of Dentistry (Science and Technical Building), and the University High School.

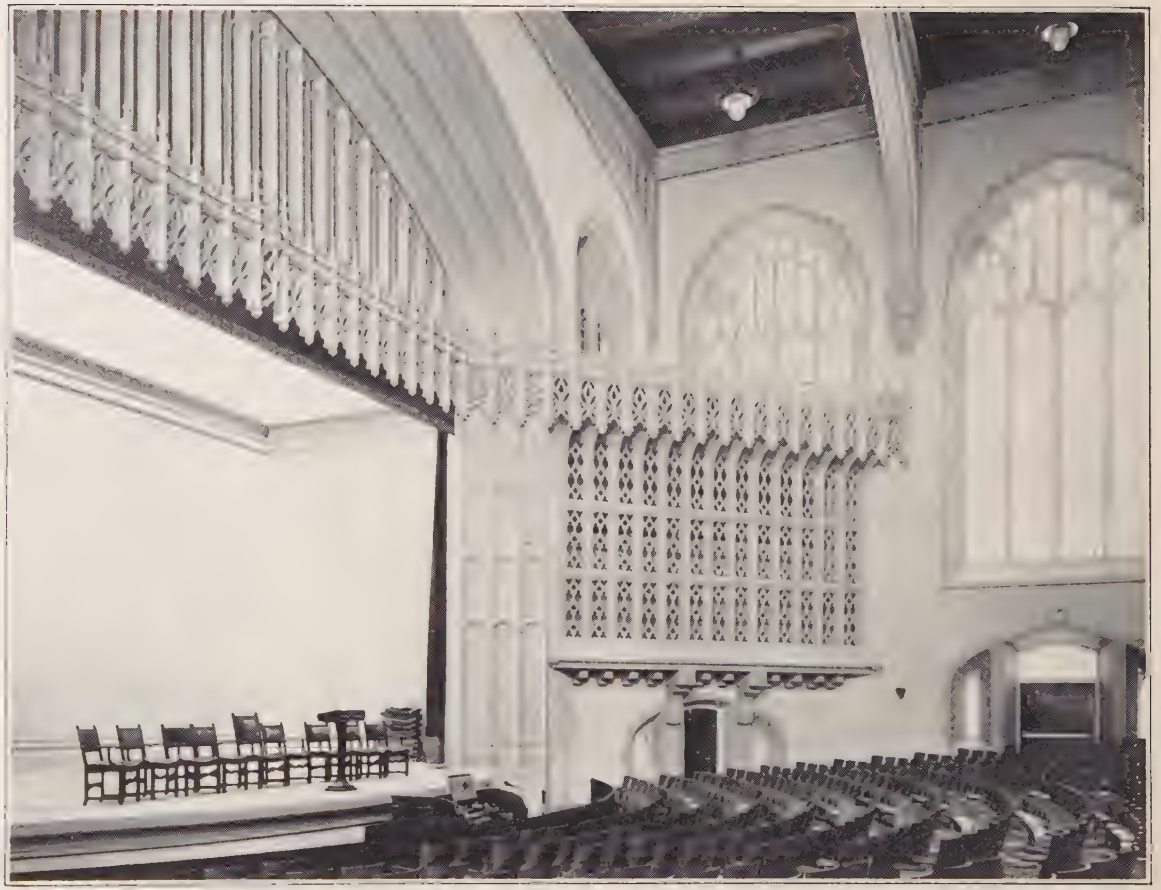
THE NON-CAMPUS COLLEGES

The College of Law, Tajo Building at First and Broadway; The College of Music, 3201 South Figueroa; The College of Dentistry (Clinic Building, 16th and Los Angeles Streets; and The Marine Biological Station (formerly at Venice, since destroyed by fire, the future site of which has not yet been determined).

THE GEORGE FINLEY BOVARD ADMINISTRATION BUILDING

The George Finley Bovard Administration Building is the first of a new group of university buildings to be erected on the university campus. It is designed to furnish the central unit of a group composing the greater university, and contains the offices of the administration, the offices of the departments of instruction, and the auditorium, together with 27 class rooms, lecture halls, and seminar rooms. One of the finest college structures in America, the building is thoroughly fireproof and modern in every detail. Included in this composite structure are four independent units, namely, the Auditorium, the James Harmon Hoose Hall of Philosophy, and the Thomas Blanchard Stowell Hall of Education, comprising the north and south wings respectively, united and connected by the Clock Tower. The architectural design is the typical Renaissance, and will probably indicate the style of future structures. The designer of the structure was Mr. John Parkinson, a leading architect of the Southwest, and the contractor was Mr. Edward C. English. The total cost of the building and its equipment was in excess of $600,000.

The Clock Tower, measuring 37 feet square and rising to an imposing height of 116 feet, is the connecting



Bovard Auditorium

unit between the Auditorium and the Hoose and Stowell Halls. On the ground floor it furnishes the main entrance to the Auditorium. On the third floor of the tower is a lecture room, while on the fourth story is found the Hall of Debate and Oratory. The top floor of the tower is an observation room, affording an enchanting view of the city and surrounding country. The statues on the tower are representative of the progress of civilization. Facing the east, from right to left, are the statues of John Wesley, founder of Methodism, and Bishop Matthew Simpson, great preacher and college president. On the north front, facing the old campus, are the American statesmen, Abraham Lincoln and Theodore Roosevelt. The statues on the west front commemorate classical achievement, representing Cicero, the orator, whose statue adorns the northwest corner, and Plato, the philosopher, on the southwest corner. On the south front are the statues of Phillips Brooks and Borden P. Bowne, American leaders in religious and philosophic thought, embodiments of spiritual ideals linked to wisdom and learning.

The Auditorium, with a seating capacity of 2,000, is directly back of the tower and the cloister. The ground floor has 1,078 seats, while the two balconies have somewhat less than 500 each. The stage is 56 feet wide and 30 feet deep, and has a seating capacity of 250. Sixteen exits lead from the auditorium, and patent opening doors are provided to prevent jamming in case of panic or excitement.

The Organ, in the auditorium, is the largest and finest instrument in the Southwest and, with the exception of the municipal organ in San Francisco, the largest on the Coast. The instrument is located on both sides of the stage and in the triangular chambers formed between the

wings of the stage and the walls of the auditorium. The echo organ is located in the ceiling. Perhaps the most remarkable feature of the organ is the inclosing of all pipes save the pedal bourdon in swell boxes, which gives the organist expressive control over all of the tones. Eleven sets of movable shutters in these boxes furnish the means of control. The total number of movements is 179, including 80 stops, 34 couplers, 44 thumb pistons, three expression pedals, and one crescendo pedal; the total number of pipes in the instrument is about 5,000. The console or key desk is movable within a radius of fifty feet. The action is electro-pneumatic and the wind is furnished by a twenty-five horsepower fan. Three different wind pressures are used, 3½, 6 and 15 inch. The stops are in the form of stop keys arranged in one horseshoe-shaped row, and the couplers are shorter keys above the solo keyboard. The stop keys are colored according to the classification of tone which they control—the diapasons are white, the flutes are blue, the strings amber, and the reeds red. The combination pistons visibly affect the stops and are all adjustable through the drawer system. The largest pipes, 32 feet long and large enough for a good-sized man to crawl through, gave a pitch nearly one octave lower than the lowest tone of the piano, while the smallest, about the size of a slate pencil, speaks at a pitch one octave above the piano. The instrument was built by the Robert Morton Company of Van Nuys, at a cost of $35,000.

The James Harmon Hoose Hall of Philosophy consists of the two upper floors of the north wing or unit of the composite structure. The ground floor contains the offices of the President, a public waiting room, and Parlors A, B, and C, the last of which is a large social hall for the students, and, with the completely equipped kitchen-

ette, is available for social functions of various kinds. Furnishings for the first floor have been donated by Barker Brothers, with a total value of about $15,000. Parmelee-Dohrmann have contributed the equipment of the kitchenette at a value of $1,000. The second floor contains the offices and lecture rooms of the departments of Philosophy and Psychology, and, at the west end of the hall, the lower lecture hall, with a seating capacity of 307. The third floor contains a number of class rooms, and, at the west end, the upper lecture hall, with a seating capacity of 307. At the east end of the floor is located the Philosophy Seminar Room.

The Thomas Blanchard Stowell Hall of Education consists of the two upper floors of the south unit or wing of the Administration Building. On the ground floor are the offices of the Dean of the Graduate School, the offices of the Registrar, together with the fireproof vault in which are kept the records of the university, and the offices of the Treasurer, Comptroller, and Business Manager. In the basement are the men's locker and wash rooms. In the cloister just north of the Registrar's office, are the offices of the superintendent of buildings, and the faculty mail boxes. The second floor is given over to offices of various departments. On the third floor are numerous class rooms, and, at the east end, the Education Seminar Room.

THE PLANS OF THE UNIVERSITY

The University of Southern California will remain permanently a city university. The present campus contains 15 acres, consisting of the old campus and the west frontage on University Ave. between 34th St. and Exposition Boulevard. Upon this site will be erected from time

to time the remainder of the series of buildings housing the Greater University, of which the George Finley Bovard Administration Buildng is the first. Plans call for a University Library Building, a Science, a Commerce and Business Administration Building, a home for the Maclay College of Theology, and buildings for other departments and colleges.

PART FIRST
SPECIAL EVENTS OF THE WEEK

SPEECHES IN CONNECTION WITH DEDICATION EXERCISES

"I AM DEBTOR"

Sermon of Dedication

BISHOP ADNA WRIGHT LEONARD, D.D., L.L.D.

Text: Romans 1:14

"I am debtor both to the Greeks, and to the Barbarians; both to the wise, and to the unwise."

The classification of the human race that is here made has respect rather to the various culture, or social condition of men, than to their nationalities.

Originally, it was a Greek designation for themselves on the one hand and for the rest of the world on the other. All who were not Greeks were Barbarians, that is, they were foreigners to the Greeks.

After Alexander's time, B.C. 323, the Greek language, the language of culture, became cosmopolitan and the word "Greeks" began to denote the great civilized, dominant races.

After the conquest of Greece by the Romans, B.C. 146, the Greek language and culture largely prevailed at Rome. "Captive Greece captured its rude victors," and the Romans, from this point of view, were classed, as Paul classed them, as "Greeks." From that time on the word barbarians denoted all the uncivilized world besides. Although in this grouping the Jews seem to be omitted, they came into view later, where from the Jewish standpoint the world is divided into Jews and Greeks.

The most striking feature of this statement is not that Paul made a classification of the human race according to the custom of the time, but rather that he regarded himself as a debtor. He was a debtor to those who had preceded him and he was glad to admit it.

Malcolm J. McLeod makes this clear when, in speaking of scholars who today are endeavoring to found a system of morals independent of the Christian religion, he says: "Some of them are positivists, some are secularists, some are atheists, all are agnostics as far as spiritual faith is concerned." He then mentions a number of the more illustrious of that class and says, "Was not the soil in which they grew a Christian soil? The atmosphere they breathed, was it not a Christian atmosphere? How much of their wealth do they owe to a Christian environment? Is it possible to separate the river from its banks and its tributaries—and its sources? The tree is rooted in the ground and the ground contributes everything to the tree. To boast of independence here were vain and idle boasting." Is it not a well-known fact that sometimes a plant will live on for years after its life-giving sustenance is withdrawn, just as the momentum of the engine keeps it moving after the steam is shut off. Such men as John Morley, Edmund Gosse, Ernest Haeckel, Maurice Maeterlink and others could not dissociate themselves altogether from the Christian environment in which they were reared.

Did it mean nothing to Herbert Spencer that his father was a Wesleyan non-conformist? Did David Hume, the "prince" of agnostics, owe nothing to the fact that his mother was a Christian of the Susanna Wesley type? Huxley was brought up in the strictest school of evangelical orthodoxy. Tom Paine was a lay preacher in the Wesleyan Church of England before coming to America. The father and grandfather of Nietzsche were Lutheran clergy-

men. Did it count for nothing that these men were born in Christian homes and were given the advantages of an environment that was shot through and through with Christian idealism? They were debtors to the past in a most profound sense of the term and most of them admitted that they owed much to the Christian enclosure in which they had been nurtured.

The modern mind believes profoundly in progress. Evolution has a definite place in its thought. It is convinced that to-day is superior to yesterday. If, however, we believe in a God, in a pre-existent absolute Being, from whom all things have come, and in whom all things consist, we realize that our notion of progress is, after all, a relative one. As Brierly says, "There has always been something better than our best," and "the past has contained a *quality of being* which has surpassed infinitely our greatest ideas."

Christian education demands growth on our part and adopts, as its chief end, the development of character. The demand of the materialist is almost irrational, for while he assures us that we are simply the product of the forces which have gone before us, he nevertheless insists that we shall surpass our ancestors. He says master your difficulties and rise above untoward conditions, but he has already taught us that we are nothing but the product of our environment.

Bishop Bashford is authority for the statement that a United States Senator once visited the birthplace of Patrick Henry. As he stepped out of the car and gazed upon the lofty mountains, he exclaimed with delight: "No wonder Henry was such an orator. These mountains could not have produced a type of eloquence less sublime than his." An old farmer at the station heard what the senator said and called out, "These mountains have been here a long time, stranger, but they have not produced an-

other Patrick Henry." The Bishop's comment is to the point when he says, "Henry was not the product of his environment. It was the lofty soul within him that spoke in sublime eloquence. Christianity does not come to a man and say that at best he is only an animal, and then make the impotent demand that he shall grow into a Christlike character." The truly Christian person is not concerned, at any rate, he is not troubled, regarding the method by which God, our Heavenly Father, has brought the human body into existence. The creative hand of the Almighty God may be seen just as plainly in a theory of evolution as in that of a direct creation. Of one thing he is sure and that is that God is the author of his life, that He has breathed into the human soul and that man has become a living spirit. Growth in character is the ceaseless demand of Christianity and fundamental to this demand is Christianity's insistence upon man's divine origin and destiny. The Christian man beholds Him, who "humbled Himself and became obedient unto death," that He might take our human nature up into His divine nature, revealing to us man's divine capacity by and through Him. When the whole mind is opened to Christ and all things are brought into subjection to His holy will, then are we truly Christian. This has been the faith of the Church throughout the centuries. It is our rich inheritance. We are indebted to a glorious past.

We are debtors to the past. But for the past there could not be any history. The knowledge of the present has come out of the past. We are the rich heirs of all that has gone before us.

The great religions of the world have come out of the past, and the experience of by-gone generations teaches us what are the things to which we should hold fast and what are the things we should let go.

Our patriotism is not based upon merely the present, but it roots back into the past. Our patriotism is stirred as we think of the Pilgrim Fathers establishing a new order of things on the shores of this western hemisphere. Our hearts are warmed as we think of George Washington, the Father of his Country, and all the events of the early days of our nation that gather around that name. So with Abraham Lincoln and the Civil War; William McKinley and the Spanish-American War; and even now, we are moved tremendously as we think of the sacrifices that have been made in the recent war and the price the nations of the world have had to pay in order that peace might be permanently established. Our patriotism is not, therefore, a thing of the present merely, but it is definitely related to the past.

The Bible has come out of the past. It has done far more for the world than any other book and occupies a primacy all its own. It is the master word that rebukes shams and evil of every character. It has a moral urgency characteristic of no other book and tells not only of some other world at some future time, but it admonishes that here and now we are to develop our powers and face life's tasks with courage, faith and determination. It teaches that whatever hampers the spirit in performance of life's great tasks must be mastered. Evil cannot lift its ugly head in the face of the Bible without shrinking, and trembling and fleeing. It teaches that the highest life is the life of sacrificial service.

None of us, whatever his mental attitude, can dissociate himself absolutely from the past. Behind us there are nineteen Christian centuries which throb and beat in our pulses to-day. When men talk of "the new order" and of the "clean slate," as some revolutionaries are talking, they need to be reminded not only of their debt to the past, but also of the fact that they cannot absolutely dis-

connect themselves from that which has preceded them.

We must, however, be careful not to disparage the present in glorification of the past.

Nations and individuals have suffered from the pull of the past.

Until the era of modern Christian Missions, the heathen and pagan peoples suffered from the pull of the past. Of all nations, China affords the most striking example. Chinese civilization became arrested because of its unreasoning devotion to ancestors. As a nation, the Chinese have been held back, not by the men around them, but by the generations of the past. To be sure, there are some other causes for the immobility of China, such as its seclusion from Europe by mountain ranges and deserts and its long inaccessibility by sea. Its main cause, however, is its glorification of the past.

When Sun-Yat-Sen was chosen provisional President of the Chinese Republic in 1912, one of the first public acts was to visit the "Ming tombs" near Nanking, where the emperors of the great Ming dynasty are buried, and in solemn ceremony to "inform" his official ancestors of his accession to power.

It was the pull of the past that caused the arrested civilization of China. She is a striking illustration of what may befall any nation that fails to master her environment and that does not adapt herself to changing conditions. Her reverence for the past took from her all initiative and she became satisfied with traditions of an ancient past. Behold her to-day! How impotent against the encroachments of Japan. But for the Christian nations her teeming millions would long since have come under the control of her ambitious neighbors. Her unreasonable, if not her fanatical, reverence for the past, has well nigh cost her a place among the other nations of the world.

When the Russians were defeated by the Japanese, Ad-

miral Togo sent the following telegram to his emperor: "The virtue of your majesty and the help of our ancestors have won for us the victory."

In Africa no savage is free from the customs of the past by which he is held under absolute control.

So it is with India where the caste system roots itself in the generations of past centuries. And so it is with other ancient peoples. *Oh, the enervating and deadly pull of the past!*

The religion of Jesus Christ alone is capable of furnishing *the* dynamic that can accomplish what cannot be brought about by marching armies.

It contemplates the reconstruction of society and already there are indications of the coming victory.

China is awakening to a new day.

Africa is rubbing the sleep of centuries from her eyes.

India, feeling the uplift of the mass movement of that great land, is announcing that the Kingdom is coming.

The fact is the old civilizations are not only crumbling, they are crashing to pieces. The new day is at hand! But this day has long been delayed because the older nations have for centuries been facing the past.

So with the man who glorifies the past unduly. There are those who are such slaves to the past that anything that can now be done is feeble and not worth doing. Such an attitude paralyzes the present, kills effort and robs life of dignity. The present exists only that it may be carried forward into a nobler future. We are heirs of the wisdom of the ancients, with advantages of knowledge and greater opportunities than ever generations of the past dreamed of possessing.

That which bulks biggest in the thought of the present is reverence for human life.

The world to-day has a sense of the worth, the dignity and the divinity of man such as it has never had before.

A modern historian finds this key to the difference between ancient and modern cilivization:

Ancient civilization was concerned solely with the interests of the favored few. The thought of the living present is the welfare of the people. Slavery was the common lot of the common people in the first century of the Christian Era. In Paul's day three out of five people in the city of Rome, which then numbered a million and a half of souls, were slaves.

A famous thinker of antiquity was accustomed to speak of "tools, living and lifeless." A slave was a living tool. What changed this view and led the world to an appreciation of the value of the individual man, woman and child? There is but one answer and that is Jesus Christ and His gospel. No one was more to Christ because of his riches and no one was less because of his poverty. He cared nothing for rank and social distinctions. The incarnation reveals not only the sacrificial love of the Father, but also the glory of man.

It has taken the world a long time to understand this and to come to it, but the present conditions of society and of the world although in some respects alarming, in others give evidence that it is beginning to realize the significance of it all.

The whole world has been brought to a fresh recognition of the worth and dignity of the individual. The ideals of Jesus Christ are being given world-wide recognition as never before.

I have no doubt but that most, if not all, in this audience will agree with me when I say that there are certain social philosophies abroad in the world to-day that are utterly destructive of democracy and aim at nothing less than the overthrow of all democratic governments. Among these are Bolshevism, which is becoming increasingly a world menace, and other phases of radicalism such as are involv-

ed in communism and political socialism. Those who espouse such social theories demand the abolition of the United States Senate, the election of all judges for short terms only, and the taking away from the Supreme Court the right to pass on the constitutionality of legislative enactments. They also demand that the veto power of the President be withdrawn and do not hesitate to declare that those who shaped and fashioned the American constitution were grafters, men of inferior mental calibre and mere attorneys for the capitalistic class.

With these neither you nor I will agree and America cannot afford to temporize with them. Though they be wrong and antagonistic to the best interests of society and of the state, if you were to run back the social discontent to which they give expression, you would find that it is due to the emphasis that is being placed upon the rights and prerogatives of the individual. True, they mistake liberty for license and know nothing apparently of "liberty defined and assured by law," but the whole social upheaval runs back to the appeal that is made to the individual on the ground of his personal rights.

All those who come to this country to enjoy the privileges and blessings which America vouchsafes to those who come to make this country their home, must know that the American people will brook no interference with our American institutions and that we will not tolerate within our borders aliens who become the enemies of our government and the destroyers of our Christian civilization.

The teachings of Jesus have literally saturated literature, created new social ideals, influenced the education of statesmen and public leaders, and have dominated the social conscience throughout the world. The Christian Church has passed through many crises. She was compelled to determine what her attitude should be toward the Roman Empire and toward Greek philosophy. In the

middle ages she had to face the question of her relation to those processes which were bringing into existence a new Europe. During the Renaissance she was confronted by the problem of the new learning. In the Reformation she struggled with the question of her relation to the new individualism in religion and politics, and in the period of revolutions, wrestled with the theories of natural rights and vested privileges. These are all great crises, but none were more vital to the well-being of the world than that through which she is now passing. The past twenty-five years have witnessed an earnest effort on the part of the Church to recover the social impulse of her earliest days. Prior to this time, she was in grave danger of losing her social vision. With changing social conditions, the Church too frequently withdrew from the field and sought "a more favorable location." Instead of placing herself in a position whereby she could understand and sympathize with the masses, again and again the Church moved away, leaving the community and its far-reaching interests to the mercy of street preachers and agitators, whose ideals were in direct antagonism to those for which the Church stands. Her face is now set steadfastly toward the future and her ministry, while increasingly social, is also increasingly spiritual. The present is to be carried forward into a nobler future.

Fully recognizing the social obligation that rests upon us and welcoming all that is truth, the positive note that will tell of our loyalty to the cardinal doctrines must be sounded again and again. The effect that certain teaching has had is to do away almost entirely with the positive note in our faith and belief. The most serious defect in the teaching process of modern education as it exists today is the lack of the developing of strength and skill in moral living. What is taught is not put to use as it should be, and there is practical need that secular as well as re-

Old College

ligious teachers learn how to put the positive, ethical, motor note into their teachings. Without positive faith we have no guarantee that will make effort purposeful. When unwavering faith takes hold on God and affirms that Jesus Christ and His Gospel are the one and only answer to the problems of life, we face the future unafraid. There must be injected into the future a more definitely spiritual emphasis.

This alone will prevent our faith from becoming decadent.

The students of this University are debtors to the past. When we remember those who founded this institution of learning and recall their sacrifices in making this work possible, we are inspired because of what they did and because of what they planned.

The University of Southern California has had a long and creditable career. Like all other schools of learning, it has had its ups and downs, and sometimes its downs seemed more numerous than its ups. However, with the belief the founders had in the Christian ideals encouraging modern education, they refused to give up the task and have pushed the battle until to-day it stands as one of the greatest institutions of its kind in the country—the third largest in student enrollment of the colleges under the ownership and direction of the Methodist Episcopal Church. While it is a distinctly denominational school of learning, it is operated on the broadest lines consistent with loyal adherence to the doctrine of Christian faith. All creeds and colors are welcome to the halls of learning here, provided the applicants are of a moral character to warrant their admission and are honest seekers after truth.

To-day we assemble for the first time as a University in the George Finley Bovard building, pronounced by competent architects and leaders in education to be one of the most complete buildings of its kind in this or any other

State. This marks the beginning of a new epoch for this University. The success of this entire enterprise is due more largely to President George F. Bovard than to any other one person. For seventeen years he has been the responsible head and president of this great institution and the manner in which he has financed it and carried it through troublous financial times is a marvel to those who are intimately acquainted with all the facts. It is fitting and proper that this building should be named after him for it will be an unperishing testimony to the devotion that this educator has shown to the cause of Christian education. We honor him to-day for what he has been as a leader and for his statesmanship in the field of modern education.

The students and alumni of any worthy University will be true to her past ideals only as they do not fail in their present duties. This institution aims at helping her students, not only to master the past, but to relate themselves practically to the present in order that they may achieve future success.

God bless the Class of 1921 as they go out into the wide, wide world to contribute their share to the progress and uplift of the race.

We are debtors to the past but, with uplifted countenances, we face the future of unparalleled opportunity.

FRATERNAL GREETINGS.

THE REVEREND CARL S. PATTON, D.D.
First Congregational Church, Los Angeles.

One of the greatest tasks of the church has always been the task of education. Our public school system, with the kindergarten at the bottom of it and the state university at the top, looks so big we are apt to forget how young it is. Even the free grammar school was a slow growth in America. For many years after it was established it was not at all clear that the state had a right to spend the people's money for the luxury of a high school education. And it is only within a comparatively short time that every state in America has had a department of Public Instruction, under which the whole system from kindergarten to university has been tied into one.

The state, in other words, is a new comer into the field of education. The church was the pioneer. Among the Jews the rabbi was teacher and interpreter of the sacred law; and the school he taught was part and parcel of the Jewish religious system. In the middle ages, the monasteries were the only schools, and out of them the universities grew. In England and on the continent, the universities established by the church are three or four hundred years older than those founded by states or municipalities. Even in America the older universities, like Harvard and Yale, were founded by the church from a hundred and fifty to two hundred years earlier than any state university. Even those branches of the Christian church that do not depend upon the intelligence of their people have realized that they must have an educated

clergy. The book they had to interpret, the tradition they had to record and preserve, the whole mission that God had given them, was not to be accomplished by uninstructed men. The churches of freer and more forward-looking spirit have had a gospel that required for its understanding an educated laity. Education has therefore always been one of the functions of the church,—necessary to her life and in some degree at least a measure of her success.

The church has not confined herself to the teaching of religion, but has spent much time and energy teaching things only loosely connected with it. And this she must always do. There is no sacred mathematics, which a boy can learn in a religious school, and which will be different from the mathematics he might learn in some other. Chemistry is the same in a Methodist college or a state university. There is no Baptist astronomy, differing from undenominational astronomy. But the period of life during which young people receive their formal education is the formative period of their lives in spiritual matters as well. It is the time during which boys and girls emerge from the religion of their childhood or of their fathers and mothers and find one of their own. As in the bodies, so in the minds, of young people at this school age, more reconstruction takes place, more old faiths are laid aside and more new ones are taken on than in any other period between birth and death. There is a way, also, of teaching even the simplest and the least spiritual subjects, there is a spirit in which it is done, and a personal influence that is diffused in it, that predisposes people toward or against religion. And it has been the aim of the church to produce in every generation not merely greatness or culture alone but that temper that is conducive to godliness. In this aim she would quite have failed if she had tried to teach only religion, leaving all subjects not closely

connected with it to someone else.

Indeed, if the church had taken any other view, and had attempted to teach religion without teaching many other subjects, it would have proved quite impossible. For religion goes back to the beginnings of things. And when you teach any theory of creation you come up against the ancient cosmogonies and the modern theories of evolution, and you are involved at once in some sort of scientific teaching. Religion has to do with God's revelation of himself; and whatever part of that revelation He has made through human beings, the record of his doings over a vastly longer period of time, is written in the rocks,—and you come to geology. There is a revelation of God outside of and beyond this little world,—that revelation one reads through the telescope; and none can read it who does not know something, at first or second hand, about astronomy. God is revealed in human life,—and so you come to history. He is revealed in the human mind,—and so you come to psychology. You cannot teach anything about God,—about what sort of God he is and why he acts in one way instead of another, without reasoning about him,—and so you come to philosophy. Men who are not distinctly religious have their ideals also, and conduct, even with them, is three-fourths of life. And when you ask about the bearing of religion upon conduct, you come to the whole sphere of ethics. If you study the history of religion, whether your own or others', you come to the study of ancient languages. You cannot understand the course of religion in the past apart from the customs and ideas with which it has been entangled nor evaluate the religion of the present without knowing how men live now, and so you come to sociology. Religion, in a word, is not and never has been, confined in a circle of its own. Like everything that is alive and growing, it is always a part and parcel of human life. No teach-

ing of religion is possible that does not run off at every step into the teaching of something else.

The obverse of this fact, even the secular institutions of learning ought for the good of society to know. Man is essentially a spiritual creature. Religion has been throughout all human history one of his two or three great and permanent concerns. Wherever you find people you find religion. There is no history of the Jews apart from Judaism; or of the Persians apart from Zoroastrianism; or of the middle ages apart from monasticism and the Catholic church; or of Scotland apart from the Covenanters; or of France apart from the Huguenots; or of New England apart from the Puritans. Take out Moses, and Gautama, and Isaiah, and Paul, and Augustine, and Mohammed, and Luther, and Knox, and Wesley, and Edwards, and the clue to whole periods of life and even to whole populations and continents, is lost. That a man can graduate from any great university, and know nothing about the spiritual history of the human race, is a reflection not upon religion but upon education. I wish the great state universities, that enroll so large a proportion of the boys and girls of all our churches, remembered all this, understood that no man is truly educated who is ignorant of the most significant chapter in the history of the human race.

What the Christian Church believes is, not only that there is this spiritual element in all life, and that therefore there must also be this same spiritual element in all good education, but that there is a natural, necessary, and friendly relation between knowledge and religion. She has never stultified herself by the assumption that the less you know about the human family and the universe in which it lives, the easier it will be for you to be devout. Underlying all her founding of great schools has been her conviction that the same God who made the truth

made the human mind to discover it, and that whenever, and in whatever realm, that truth is uncovered, some part of the infinite life of God is made more manifest. Her interest in education rests upon the fact that whatever man discovers, God reveals. It is against the background of this great truth, and as a commentary upon it, that her schools and colleges range over the entire field of human knowledge, rounding out all their teaching with the teaching of the highest and best part of man's development, his search for and his knowledge of the living God.

While, therefore, I do not begrudge to the state her growing interest and influence in education, I rejoice all the more in the growth of great Christian colleges and universities. Free from merely clerical domination they must always be,—not timid, nor circumscribed, but looking with eager eyes for the truth, even though it may now and then contravene some cherished tradition. But religious and Christian they will always be, seeking behind and within all knowledge the truth that makes men free, and producing not merely the temper that makes for progress but the spirit that makes for godliness. I rejoice in the progress that this day signalizes; and upon all the labor which this day crowns with success, and all the promise that it speaks of a better commonwealth wise in the things of the spirit. I, a representative of a sister church equally interested in education, bring you my heart felicitations. God bless the University of Southern California, and make her, in His kingdom, a city set upon an hill that cannot be hid.

PROLOGUE AND PRAYER

AT THE DEDICATION OF THE ORGAN

DR. W. E. TILROE.
Maclay College of Theology.

THROUGH lengthening years these stately halls will hail the tread of tramping feet. Along their fretted aisles wise voices of the great and good will quiet folly and allay unrest. Eager men and women of the morrow will bring their questionings and carry hence the wondrous peace of knowledge and sage counsel. Under this roof, fathers, mothers, brothers, neighbors, friends, eyes winning and wet with smiles and tears, will greet and grace high days when dreams come true. The home, the church, the market, the desk, the fatherland, all will come to harbor here as sailors from the seven seas. It is our joy that the ancient solemn speech of the great organ, king among the princes of music, is to be our company in all our goings. It will cheer us when the road is heavy. It will bid us stand and wait when we would rush to weariness and trouble. It will say, "Peace, be still," and storms will die to calm. Nor will the hours be few when it will open heaven and give us a vision of God. With prayer and song we dedicate today this dream of our pride and love. May its mighty voice tell endless generations the kindly tale of our alma mater, the University of Southern California. May it bless the world and honor the Giver of all good.

DEDICATORY PRAYER

O GOD of all the earth, Father, Redeemer, our Strength and Joy: we bow at Thy appearing: we sing Thy praise.

The good that crowns our days is never other than Thy gift. Our hopes of the immortal ages are of Thy begetting. We rest in Thy holy keeping. The thought of our hearts, our love, the works of our hands, are precious in Thy sight. We bring the far-flung voice of the great organ into Thy service assured that we have Thy smile. Is it not written in the book: "Let everything that hath breath praise the Lord?" As the pilgrim upon his staff we shall lean upon its guiding in our convocations, and be glad. It will sanctify our joys. It will comfort our grief. That it is with us many an evening shadow shall be light. Into our noontime it will not rarely bring a shining above the sun. To the culture of youth, the help of human kind, the glory of our God, we give this kindly voice of worship and delight. May the day of its silence be far away. May they be many who sit at the feet of the Heavenly Father, because it is here. AMEN.

UNDERSTANDING OF THE TIMES

Sermon by
THE RIGHT REVEREND BISHOP WILLIAM BERTRAND STEVENS
PH.D., LL.D.

Men that had understanding of the times,
to know what Israel ought to do.
— 1 Chron. 12:32.

These were men of the tribe of Issachar, who under David were to be the agents of a new social era. They were men of great courage. They were men of self-sacrifice and devotion to duty. But the quality that made them stand out among their fellows was their gift of analyzing the need of the day and age. They had "understanding of the times to know what Israel ought to do." They were of the type which every generation needs in its period of emergency, of the type which the world needs today as seldom ever before.

There have been three great crises in the Christian era. The first was that which we call the Christological crisis, in the third and fourth centuries of the Church's life when men were obliged to define their conception of Jesus of Nazareth. If, as you read the story of the early councils, dignity and reverence seem to have been forgotten, remember it was a life and death matter to the early Church. The second crisis is that known as the soteriological when at the Reformation period the Church found it necessary to describe man's relationship to the Divine. And the third is that which we have been confronting for some decades and which we call the social crisis.

There is no general agreement as to what the social crisis is. To some it is primarily religious, to others moral, and to still others economic. It is probably all of these. Certainly when we read that great states in the Union are eighty-five per cent unchurched, we may believe it is religious. When we see the loosening of restraints and connections all about us, we suspect that it is moral. When we are confronted with all the maladjustments and inequalities of our industrial system, we know it is economic. Can the Christian church offer any solution? It can by raising up a generation of men that have "understanding of the times to know what Israel ought to do."

In considering ways and means of securing a maximum of effectiveness from the Christian church, it may help you to recall what it was doing for several decades preceding nineteen hundred fourteen, to meet the so-called social crisis. For the most part, the Church's solution of social problems was thought to be in the institutional Church. We saw the success of the Young Men's Christian Asociation and kindred institutions and decided that the fundamental duty of organized Christianity was to touch life at a dozen points instead of one. We honestly believed that if religion could extend its influence through clubs and classes and gymnasiums to the unchurched, a new social order might be created. As a result, there sprang up all over the country, parish houses that were perfect beehives of industry and activity. From many points of view, it was decidedly worth while. In any case the institutional church in one form or another is with us to stay and most of us are content to have it so. One result, however, we did not anticipate. In the extension of parochial interests, we developed a generation of clergy whose prophetic functions became subordinated to the administrative. In a bright little book written some years

ago by Doctor John Watson the situation was analyzed thus; "As the social tendency of the congregation is becoming more marked every year and new inventions are being added, it is vain to urge a return to the simplicity of the past when a congregation was a body of people who met to worship God and study His will. For this kind of institution, a teacher to expound the Bible, or a pastor to train the character of his people, is hardly needed and certainly he would not be appreciated. The chief requisite demanded is a sharp man with the gifts of an impresario, a commercial traveler, and an auctioneer combined with the slightest flavor of a peripatetic evangelist. Instead of a study lined with books of grave divinity and classical literature, let him have an office with pigeonholes for his programs and endless correspondence; a cupboard for huge books, with cuttings from newspapers and reports of other organizations, a telephone ever tingling and a set of handbooks 'How to make a Sermon in Thirty Minutes' or 'One Thousand Racy Anecdotes from the Mission Field.' " This was illustrated in the war in an interesting way. The head of the Southern Department of the Army Young Men's Christian Association said he found it easier to get Christian ministers for a social or an educational program than for a religious program. It was not altogether the fault of the clergy. Through circumstances, they had become administrators and turned instinctively to the practical tasks they could do best.

The time is ripe for a revival of lay leadership. The clergy must be men of vision and insight, but they cannot be if they spend their time in serving tables. No one wants the minister merely to preach vague abstractions and the laity to see nothing beyond the temporal necessities, but is it not possible to have clergymen faithful in preaching the word and in administering the sacraments and, standing shoulder to shoulder with them, strong vig-

orous laymen ready to "carry on" in every department of the Church's life? The Church needs more laymen that have understanding of the times who will live and preach in their own way a gospel for today.

Today's gospel must be a gospel of enthusiasm. If I had a more facile pen I would write a thesis on the relation of enthusiasm to religion and morality. In the first chapter of Dean Church's History of the Oxford Movement, the author describes the fear of enthusiasm in early eighteenth century England. It was in that period that conditions were at their worst,—morally and religiously—in England. "Every one laughs," said Montesquieu, "if you talk of religion." Bishops boasted that they had seldom been in their dioceses. "Drunk for a penny, dead drunk for tuppence," was a street motto; England was rescued from all this by the enthusiasm of the Wesleyan and Oxford revivals. I believe a similar connection could be traced through all history.

It is obvious that today the fine flavor of apostolic enthusiasm has been somewhat lost. Organized Christianity with all of its great achievements and noble ideals may be said to be in a dangerous state of "normalcy." The Church's problem is intensive as well as extensive and your task as followers of Christ is to be what may be called (if I may be pardoned a cheap and thread-bare phrase,) one hundred per cent Christians, men and women who are ready to live out their faith to its very last implication, men and women who, as the Bishop of Worcester puts it, will not shrink from the crispness of religion, men and women who are ever seeking a fresh baptism of the Holy Spirit. You know the story told by Robert E. Speer of the young Chinese from a remote province who after telling Mr. Speer many things of the mission work in his province, turned to him and said, "Mr. Speer, there is one question I want to ask of you about

the Christians in your country. Are they men and women of burning hearts?"

Today's gospel must be a gospel of intelligence. In so many phases of our Church life the impulse of the heart and the impulses of the mind seem arrayed against each other. In particular does this seem true in our attitude towards industrial questions. Prejudice and class consciousness close our minds to the problems of labor. Vague benevolence on the part of our clergy stands in the way of any real contribution to the solution of those problems. How rarely is there any attempt to *know* the facts. The program of the British Labor Party says, "We must have more warmth in politics; but warmth without knowledge is like heat without light." In a recent magazine a chemist has written an article in which Einstein's theory of relativity is applied to life. There is one very suggestive sentence in it: "Ignorance in action is an offence against public welfare because understanding is a dimension of conduct." Oh, Christian people, Christianity does not demand any definite standard of intellectual attainment. It is its glory that it can appeal to every man. And yet it does ask that we use the brains that we have. Someone has said that it doesn't take much of a man to be a Christian but it takes all there is of him. Enthusiasm without intelligence is useless. You may recall the old story of the colored preacher who was praying, "Lord give me more power, give me more power, give me more power," and a young negro in the rear shouted, "Parson, it isn't more power you need, it's more light."

Today's gospel must be a gospel of faith. Christianity is irrepressibly optimistic. Through its optimism it turns defeat into victory. By its faith it can venture and endure. The world craves religion. A purely humanitarian gospel may satisfy for a time but ultimately it will be rejected. Apart from religious faith we are in a *cul-de-*

sac and nothing could be more short-sighted than to cut off our means of escape. A dramatic story is told of the assassination of James I of Scotland by some of his lords in fourteen hundred thirty-seven. The conspirators were about to invade the royal apartments. The queen and some of her attendants were letting the king down through the floor into a vault beneath from which there was an exit to safety. At the great door, leaned Catherine Douglas, one of the queen's ladies, her face distorted with pain; in place of the heavy bolt which had been mislaid, her bare arm was thrust through the carriers. This heroic defence served long enough for the king to drop down through the door to the imagined safety. The conspirators readily found the door, and descending found there the king. The means of exit he had counted on was blocked. Some time before he had the opening walled up because it interfered with his tennis game. The king had courage and ingenuity on his side but by his own forgotten act he had made escape impossible. Whether true or not, the story is a forceful parable. The world may have courage and ingenuity but it cannot escape from its present chaos except through the religion of Jesus Christ. "I am the door; by me if any man enter in, he shall be saved and shall go in and out and find pasture." All this must men of understanding of the times realise.

George Washington once stood before a regiment of Connecticut troops and said "I am counting on you men from Connecticut." Is it too much to imagine that God is looking down on you, the intellectually privileged, and saying, "I am counting on you, counting on you to be men of understanding?"

EXERCISES IN RECOGNITION OF DELEGATES

INTRODUCTORY ADDRESS
RECOGNITION DAY, JUNE 21, 1921,

DEAN ROCKWELL D. HUNT,
Presiding.

The presence of this body of distinguished guests on the platform today, and of this audience of citizens and friends, does great honor to the University of Southern California. Special honor is most worthily bestowed upon the one man who stands easily first among educators of Southern California, the man whose name has with singular appropriateness been given to this magnificent building,—President George Finley Bovard.

We are highly honored, I say, to have present with us the Governor of the great Commonwealth of California, our distinguished State Superintendent of Public Instruction, presidents of sister institutions, and professors of colleges and universities: but all will heartily agree with me, I am sure, when I affirm that the one figure that dominates this occasion, and around which all others circle to do obeisance, is the towering figure of President Bovard.

Two days ago this noble edifice was solemnly dedicated to the high purpose of Christian education. On yesterday the north wing was appropriately dedicated as an enduring memorial to James Harmon Hoose; and only a few hours ago the south wing was similarly dedicated to Thomas Blanchard Stowell. At this time we have assembled ourselves—hosts and guests— to rejoice together and to recount our aims, renew our hopes, and re-affirm the ideals of Christian education.

President's Office

This exercise, in dedication of George Finley Bovard Administration Building, marks the beginning of a new era for the University of Southern California. Time does not permit us to recall its history and yet we must afford a glimpse or two into the past.

In 1902-03, the first year of President Bovard's encumbency, the total enrolment in the University numbered but a few score of students; the total enrolment for the year just now ending (1920-21) is shown to be 4859 different students. The Graduate Department of the University was established in 1910-11, and 10 years later it was organized into the Graduate School of Arts and Sciences. The enrolment in the Graduate School for 1920-21 was 211. In 1911 the University of Southern California was duly authorized by the State Board of Education to issue the formal recommendation for the California High School Teacher's Certificate, placing it on the same basis as the University of California and Stanford University in this respect. Since that date (including the present class) the High School Credential has been granted to 920 candidates, and today our graduates are found in instructorships and administrative positions in more than 200 of the State's high schools. Since the establishment of the Graduate Department in 1911, 270 candidates have been awarded the degree of Master of Arts, and 10 candidates the degree of Master of Science. The total number of graduates for the current academic year in all departments is 487.

It is obvious that the University of Southern California is rendering an educational service to the City of Los Angeles and the State of California of no mean magnitude, without, on the other hand, receiving any direct appropriation whatever from either City or State. The indirect value and general benefit of a great university to the community it serves are of course quite incalculable. The

city should cherish the University in its midst as the apple of its eye.

As a direct financial asset, likewise, the University has attained very substantial proportions. The tuition receipts alone for the current year approximate $275,000. It would be comparatively easy to estimate the total amount of money brought to Los Angeles and diffused throughout the community by the great body of students attending the University. And the budget grows rapidly larger from year to year.

The University of Southern California was founded in 1879 in response to the earnest feeling that the interests of Christian education demanded the establishment of an institution of higher learning in Southern California. In accordance with the fundamental aims of its founders the University, while requiring no particular creed or faith on the part of its instructors or its students, has consistently stood, and stands today, for the effective promotion of Christian culture. It recognizes that the essential meaning of life is spiritual. Because the object of life is growth, and the true ground of culture lies in his own nature, because of his masterful intellect and the divine powers of his soul, Christian scholar is a nobler title than prince or potentate.

The scholar is a god-imaging man, in whose intellect is the world incarnate. He is equipped with the armor of the ages. "The universe is rifled to furnish him." If you would seek admittance into the temple of scholarship, you must enter through the courts of an unbiased education, pass through the portals of humility and reverence, cross the vestibule paved with obstacles overcome, and rise on the elevator of faith to the serene heights where you become the pupil of nature, of man, of God. Without a liberal culture one may never hope to enter into the inheritance prepared by native endowment and the history

of succeeding ages. The scholar is the heir of the ages. Likewise the present makes large demands upon him, and upon his fidelity rests the civilization of the future.

In this day of the pre-eminence of the college man, in the midst of a distraught and well-nigh despairing world, it is meet, right, and the bounden duty of us to whom is committed the task of the higher culture of men to re-examine the foundations of modern scholarship, scrutinizing the pages of history for a sign, yet not worshiping the past, pointing the arduous way to the interior life in the midst of outward change, yet not shrinking from rude contact with brother men in the mass. Think it not ungenerous if a promising youth consumes many years in comparative isolation the better to prepare himself to meet the rigorous demands of modern society. He may be in training, as was Moses, for a national deliverance; he may be living with generations yet to be. "I may well wait a hundred years," said Kepler, "for a reader, since God Almighty has waited six thousand years for an observer like myself."

Nevertheless the scholar, once equipped, has, and ought to have, positive and immediate relationships to society.

Education will always fall short of perfection until it achieves the universal implantation of the ideal of social service. The scholar must address himself to the great social tasks of America and to the intricacies of international problems: state and church are exactly right in looking to the colleges and universities for leaders who can bridge the chasm between ignorance and intelligence, lessen the distance between misery and opulence, dethrone vice, exalt justice, and advance the general welfare.

The object of all true education, therefore, is the more abundant life and the fine art of social living together.

The scholar cannot do all things well, but in order to do one thing well he must be able to do more than one.

We admire singleness of purpose in the midst of versatility of accomplishment. The scholar who is a statesman must also be a philanthropist; a politician, also a social reformer; a preacher, also a teacher. Society demands not so much that he be strongly intrenched behind the breastworks of his profession as that in his chosen profession he be unselfishly and nobly himself.

National prosperity—civilization itself—depends upon a widely-cultured, broad-visioned citizenship. Martin Luther is thus quoted: "The prosperity of a country depends not on the abundance of its revenues, not on the strength of its fortifications, not on the beauty of its public buildings; but it consists in the number of its cultivated citizens, in its men of education, enlightenment and character; here are to be found its true interest, its chief strength, its real power."

On the occasion of the formal opening of the American University in Washington, D.C., in 1914, President Woodrow Wilson said: "The object of scholarship, the object of all mankind, is to understand, is to comprehend, is to know what the need of mankind is. That is the reason why scholarship has usually been more fruitful when associated with any religion, and scholarship has never, so far as I can at this moment recollect, been associated with any religion except the religion of Jesus Christ. The religion of humanity, and the comprehension of humanity are of the same breed and kind, and they go together. It is very proper, therefore, that under Christian auspices, a great adventure of the mind, a great enterprise of the spirit, should be entered upon."

The University of Southern California takes this auspicious occasion to reaffirm the high purposes that called it into being, to set up a new milestone in its onward way, and to pledge its faith as a guardian of the future.

The dedication of Bovard Building is made the occasion

of an intellectual feast, and to this feast we have invited friends of education from far and near. Congratulatory replies have been received from scores of institutions, and a goodly number are personally represented by delegates.

For this generous response the University is deeply grateful.

Delegates, friends, representatives of America's best and civilization's dearest, the University of Southern California welcomes and salutes you all! And we now propose that you permit us to introduce each of you in order that this audience may rejoice with us at your presence in our midst.

RESPONSE OF THE HONORABLE E. P. CLARKE PRESIDENT OF THE STATE BOARD OF EDUCATION OF CALIFORNIA

There were enrolled in the high schools of California last year over 160,000 students—the largest high school enrollment of any state in the Union. The enrollment for the year just closing has probably been greater than this and California without much question has maintained her lead in high school attendance. There were over 25,000 young people in the fourth year class of the high schools last year and the time is near at hand when there will go out from the high schools of the state every year some 15,000 young people who are ready and eager to enter college. That fact is tremendously significant, and it is certainly an inspiring thought that an army like this, of choice young men and women, is started on the way every year for the portals of our colleges and universities. It would be a tragedy, moreover, if provision were not made, by the state or by private institutions, for the higher education of these youths who are so earnest in their desire for it. All of us, therefore, who are interested in education ought to rejoice, and we do rejoice, in every notable increase in buildings, equipment, and faculty on the part of institutions of higher education anywhere in the state. That is why this occasion is such a happy one, not merely for the University of Southern California but for all friends of education.

It is not enough, however, that we point with pride to the mere numbers who are graduating from our high schools and enrolling in our colleges and universities. We ought to go a step farther and ask ourselves, Why are they

doing this? What is their purpose in seeking a college training, and what does the college course offer them?

We must agree that a college training does not necessarily mean greatly increased power to earn money. When the bricklayer can earn more than the college professor and the ditch digger may receive a larger wage than the high school teacher or the minister, this can hardly be true. The college does not offer the pecuniary reward as an inducement and, in general, our young people have a more serious and a more unselfish purpose in going to college.

I quote the words of a distinguished American, Vice-President Coolidge, as to the purpose of a college education. In a recent address at Wesleyan University he said:

"There is an inherent nobility in man that responds to leadership, responds to a presentation of the truth, and responds to a sense of duty, for man is more than selfishness. He has a desire in him for attainment, and he finds his ultimate satisfaction in the service of his fellow men. Hence, while we may not look ultimately to an increase in compensation, we can look now and forever to the sense of duty that is in our fellow men to preserve and safeguard the foundations of our republic. This end will be attained through the teachings of our schools, our colleges and our universities. Those spiritual foundations that came to us in the teachings of Wesley and Edwards, those we can recreate from day to day. With every commencement season, let us renew our allegiance to those principles and reaffirm our conviction that on them depend the true salvation of our country and the preservation of our liberties sound and secure for every man."

I desire to add the testimony of a British authority—a man who is an educator as well as a statesman Not long ago I heard Sir Auckland Geddes, British ambassador, say that the diadems in the crown of popular

education in England are these: courage, humor, cheerfulness, sympathy, loyalty, humility. Those are diadems that may well be made the aim of education in America as well as England; and in general I believe the purpose of our college faculties is to inspire in their students those noble qualities, and I am inclined to think the noblest of them all is humility.

> "The tumult and the shouting dies;
> The Captains and the Kings depart:
> Still stands Thine ancient sacrifice,
> An humble and a contrite heart."

One of the world's wisest of men long ago said, "Where there is no vision the people perish." The most urgent need of America today in this after-war crisis is vision—the power to see clearly the sophistries of the cruel creed of Bolshevism and the selfish principles of the ruthless power of autocracy as represented by some of the organized forces of "big business." For the mass of the people that gift of vision, the just sense of proportion, the ability to see what is the "good, the beautiful and the true" can only come from trained, sane, unselfish, inspired leadership. That training for leadership it is the highest mission and the greatest opportunity of our universities to give. With all the fickleness and perversity of human nature, the underlying instinct of people is to do right and follow wise leadership. Give the people of America true leaders, and they will keep step to the drum-beat of progress.

Sad indeed it would be if the wonderful impetus that the war gave to the spirit of altruism should now be lost. "Peace hath her victories no less renown'd than war," and her obligations, too. The red menace of anarchy is today as real as was the gray menace of the Huns. As a nation we are bowing down to the god Mammon and yielding to

the spirit of indifference to the obligations of good citizenship and religion. There never was a time in our history as a people when we had more need of the righteousness that exalteth a nation. Our universities ought to help lead the people up to higher levels; they ought to send forth their graduates as evangels, bearing the lighted torch that shall kindle anew the fires of education, patriotism, and righteousness.

The true test of success for the university is the test of service—the test that shall find its product not mere filing cases packed with assorted facts, as Edison would have us believe, or machines equipped to make money; but men and women touched with the prophet's power of vision and the Nazarene's love for service.

Edwin Markham has well said,

"We are blind until we see
That in the human plan,
Nothing is worth the making,
If it does not make the man.

"Why build these cities glorious
If man unbuilded goes?
In vain we build the world unless
The builder also grows."

It is because I believe the University of Southern California is making men, because this new building is to be dedicated to that high purpose, that I bring you greetings and congratulations today from the state department of education.

RESPONSE BY MRS. SUSAN M. DORSEY SUPERINTENDENT OF LOS ANGELES CITY SCHOOLS

Public education in Los Angeles owes something to the University of Southern California and takes pleasure in acknowledging the debt. In this institution many of our teachers have gained a new insight into the problems of education, and their satisfactory solutions have broadened their vision of the social service involved in public education and have added to their professional training.

I well remember this University in the days of its beginnings. As I compare its extensive campus and fine buildings with the one small structure and the limited grounds of not so many years ago, I am forced to believe that into the upbuilding of this great school has been put much of intensive and concentrated human energy.

It must have taken patience on the part of those who have presided over the destinies of the University of Southern California to meet the difficulties of the years of pioneering, to persist in improving standards when economies counseled compromise. It must have taken faith to vision the institution of today and to believe all through the years that accomplishment and yet more accomplishment was the destined portion of this University. It must have taken courage to persevere through the lean years,—there have been many such, for even in California not all years are golden. It must have taken much of sweetness of spirit to prevail so happily, for there have doubtless been periods when jangling councils needed the gentle word and the spirit of self-restraint.

Methodism commands the respect of the world for two

reasons: because it believes in God and because it believes in itself.

The Superintendent of the public schools of Los Angeles brings to the delegates here assembled the heartiest congratulations for the achievements and the bright prospects of the University of Southern California.

RESPONSE OF PRESIDENT BLAISDELL OF POMONA COLLEGE IN BEHALF OF COLLEGES AND UNIVERSITIES

It is a very pleasant charge that is laid upon me to express on this happy occasion the felicitations of the colleges of Southern California, for in a peculiar sense there has been a mutual interest among us all. The colleges have sprung out of the religious impulse and purpose. Kindred, thus, in birth, they have shared a common struggle, ought to serve a common mission, and are growing up into efficiency for a common cause.

This day marks, as it seems to me, an epoch in the educational life of Southern California. Adequate investment for education is not characteristic of the initial days of a pioneering community. There are physical problems which must first be faced. There are roads to be built, railroads to be laid, harbors to be built. After this comes the period of commercial expansion, with all that is involved in the creation of trade and the organization of finance. Only after these are well on their way does there come that large consciousness of the intellectual needs of the community which prompts those ample gifts which resource great educational institutions. This building standing in its glory is a testimony to the fact that we are completing these earlier periods and that the citizenship of the Southland is entering into some conception of those munificent bestowments which can alone make education efficient. We look backward therefore across the path we have come and we honor the struggles and the self-sacrifice of those who have made this day possible.

The day is epoch-making also because we look not only

backward but forward. Here is one adequate building for a great university. It is the prophecy of other buildings which are to come, so that the homes of learning in the West shall be sufficient for the high work which should be done for a noble and worthy civilization. In all this, past and present, the sister colleges of Southern California and the country unite. We rejoice in the fortune that has befallen this institution in this day, and we wish it God-speed in even better days that are to come.

ANNUAL ALUMNI ADDRESS

THE NEW INDIVIDUALISM

THE REVEREND WILLIAM S. BOVARD, D.D., LL.D.
Corresponding Secretary, Board of Sunday Schools of the Methodist Episcopal Church.

Mr. Chairman, Members of the
Alumni Association and Friends:—

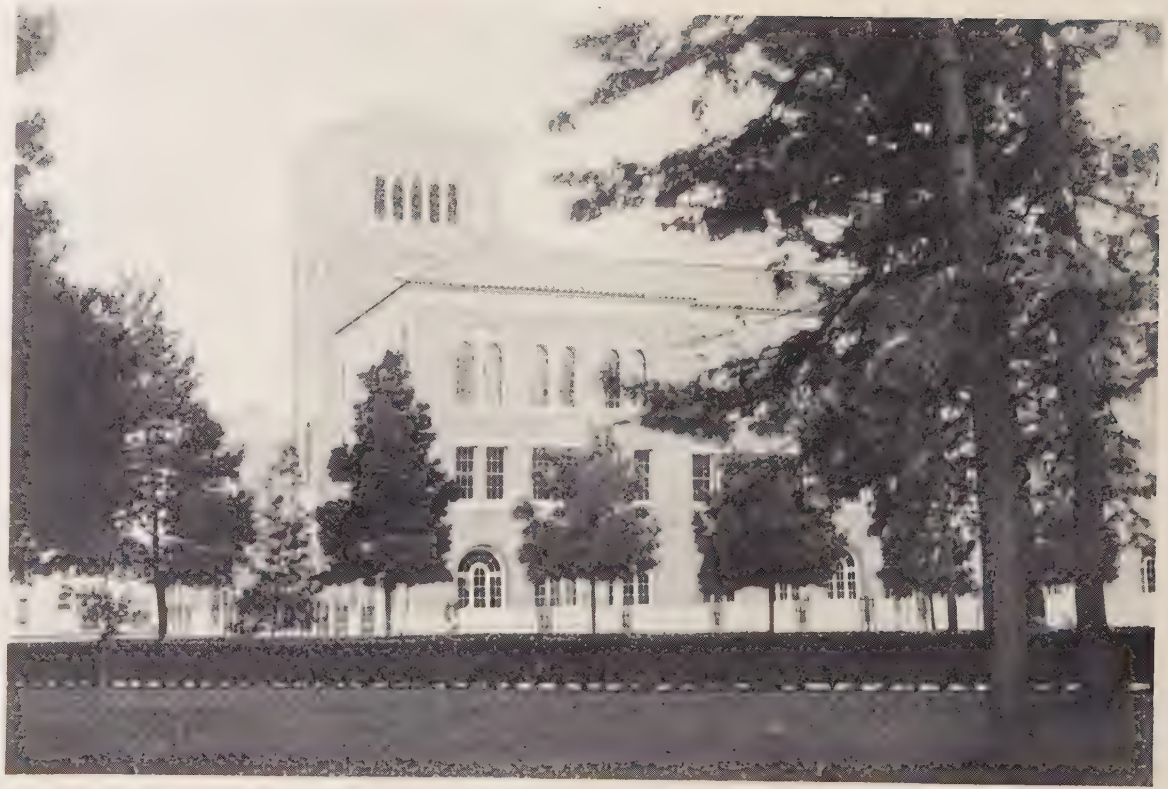
It seems almost incredible to me that all we mean of equipment, resources and achievement when we say "University of Southern California" should have been brought to pass within the past four decades. There are some of us here tonight who would not confess to have passed the period of seasoned youth who remember distinctly the modest beginnings of this institution.

The young man who has presided over the growth of the University for more than half its life was a member of the first graduating class, the class which founded the Alumni Association. The class of 1888 to which I have the honor to belong was inducted into the Association when the entire membership was less than twenty. Today nearly 15,000 sons and daughters of the University scattered throughout the world are giving a good account of themselves in worthy service. Mr. President, on behalf of each of these I wish to assure you that the alumni of the University of Southern California appreciate their Alma Mater and pledge loyal and substantial support.

I now wish to consider with you a theme vibrant with present day interest. I choose to phrase it as *The New Individualism*. Any unbiased student of the movements

in the human world will agree that we are making notable progress toward the goal of world brotherhood. The socializing movement is not optional but inevitable. We are under the inexorable law of the solidarity of humanity. We belong together whether we like it or not. "We are members one of another." The barriers which once separated nations are now become the boundaries binding them in one great neighborhood. The perils of this enforced contiguity can only be overcome by learning how to live together in the spirit and practice of brotherhood. The frontiers have vanished, there is no longer a geographical provincialism, and that fact greatly hastens the passing of the provincial type of mind. This is the day of world citizens. Without discussing further the quite obvious fact that the social conception of life is bound to prevail throughout the world, I raise the question as to what effect this must have upon the individual? There are those who are very jealous of the integrity, freedom and initiative of the individual. They look with alarm upon the entangling alliances in which individuals are involved in an ever enlarging social group. As individuals they know they are free, and they are conscious of an urge toward large self-realization; social restraints are oppressive and they shrink from being lost in the mass.

On the other hand there not a few individuals who have been fighting a losing battle in the competitive struggles of an individualistic order, and are exceedingly weary. They hail with enthusiasm a co-operative order of burden sharers. It appears perhaps to some of them as a kind of Nirvana where defeated individuals may lose themselves in the group. They point out with force the folly of the man who thinks it heroic to attempt an ocean voyage in his own row boat. It may be exhilarating for a while in the harbor; but once out on the turbulent sea, he finds that his activities are hopelessly limited. He must bend



View from the North
The George Finley Bovard Administration Building

constantly to his oars, he cannot eat, nor sleep nor read. How long should it take him to appreciate the great ocean liner, the symbol of co-operation? By such a system of navigation the mere matter of existence is made relatively secure, and the larger interests of life may have attention.

My main contention is that the more thoroughly the human world is socialized the greater are the demands made upon the individual, the challenge to the individual for self-realization and growth being commensurate with the demands. In a co-operative order service becomes the determining principle and not self-interest. The friendly competition as to who shall be the most effective servant promotes brotherhood. We must not fall into the fallacy of thinking that individuals coalesce in the social group as drops of water appear to be lost in the sea. The invincible integrity of the individual is as much a fundamental law of God as is the solidarity of the race. The socializing of individuals is not a process of amalgamation, but of co-ordination. The multiplied contacts of a social organization require unusual strength in the individual units comprising that organization. A building unit, a brick for example, may serve a useful purpose in a small, cheap structure even though it is poorly pressed or burned, but if it is to have a place in a great expensive and useful structure such as this college building, it must pass the tests of strength and endurance. Let no individualist think for a moment that the intimate alliances of a social order relieve the individual of initiative or circumscribe his legitimate aspirations. On the contrary he identifies himself with the group, and seeks to grow to such proportions as shall enable him really to help the group to attain its loftiest purposes.

One of the most picturesque characters in the union army during the Civil War was General Wilder. He left a lucrative manufacturing business near Richmond, In-

diana, volunteered as a private soldier, and in a remarkably short time became a Brigadier-General. He conceived the idea that he could greatly increase the effectiveness of his brigade if he could only mount his soldiers. The government could not for some reason accede to his request for horses. He took the matter in hand and gave his personal receipt to the farmers of Tennessee for horses enough to mount his brigade. The government of course later remunerated the farmers on the strength of the general's receipt. When the first repeating rifle had been tried out and found practical, General Wilder wanted to multiply his force by arming his soldiers with guns that would shoot seven times. Again his request was denied by the government, but he appealed to the bankers of his home town to loan him the necessary funds and take a mortgage on his business. The Quaker bankers loaned the money but refused to mortgage the property of their patriotic neighbor, and Wilder's brigade mounted and armed with repeating rifles became a fighting unit which won great renown. One day I asked the fine old general, who lived to a ripe old age loved by thousands, to tell me in a word the secret of his unique success as a soldier and he gave this significant answer—"*I made the war my own.*" It is the challenge of the group life and the struggle to every individual who is a part of it to make the problems and purposes of the whole group his own, and so to live and grow and serve as to help the whole group to triumphant success.

May I be permitted to indicate briefly a few of the characteristics which should mark the individual who is to be strong enough to be a useful unit in the social order?

1. He must have the inner or soul resources greatly enriched and strengthened, so that he shall always be master of that without, and never merely a victim. How much of the complex of the social world can one make his own?

It takes more than deeds recorded, more than money paid and receipts in hand, to give possession, more than official title to guarantee administration. The soul must have great appropriating and assimilating power. The psychologists tell us that man is two-thirds will. There are times when the man might well be ninety-nine one-hundreths will, when he must extend his control over areas of external resources and forbidding circumstances.

I have always been fascinated by the vivid picture given by the psalmist when he referred to the "man who was enclosed in his own fat." Thinking of a small, weak soul entombed in the body which should be directed as an instrument! Today Charles Paddock, one of your own students, broke five world records on the running track. Much might be said in praise of his physical training, the splendid co-ordination of all his muscular powers, but I am sure that the explanation of his notable achievement is to be found mainly in the strong will to win. The spiritual tenant of that fine athletic body is master and compels victory.

In society of human interdependence, where service is the governing principle, the individuals have it within their power to enlarge their personalities by investing material resources, organizations, and institutions with their own directing spirit and controlling purpose.

2. The new individual who may be expected to measure up to the demands of a social order, must have a dominant passion for the immortal values in human life. His motive must be rooted and grounded in human worth. Such a primacy of character classifies all else in the realm of means. Materials, institutions and activities find their right to be, and their right to abide in their service, to socialized character. They must be tested by this demand for spiritual production or we will find ourselves making the too frequent mistake of regarding means as ends.

Some of the most ancient and sacred institutions must rest their claim for perpetuation upon their contribution to the deepest needs of life. The Scriptures hold a place of power in the world to-day not because certain defenders of the faith stand guard, but because the Scriptures find us at our deepest depth with inspiration and wisdom.

No ecclesiastical institution, no ancient definitions of Christian doctrine, are to be preserved for their own sake, but wholly because of their service to life and character. When the master said, "The Sabbath was made for man," he expressed the final cause of all organized religion.

The same discriminating insight is needed to-day in the industrial world. Capital must not be exalted as an end in itself; it belongs in the realm of means; it must be valued in terms of human need and character enrichment. People who seek to possess wealth must understand that they are after instrumentality with which to serve the socialized human world. Labor organizations are thought of by many of their promoters as something to be kept up with unmodified integrity. Such is not the case. They have only to show their productiveness in increased intelligence, high honor, fair play and social improvement to maintain their place among the agencies serving the recognized needs of man. The church as a servant of human life on behalf of the virtues of character has not always been administered as a means, but it has been thought of as an end to be served. There is a vast difference between "church work" and the "work of the church." Church work is concerned with the *outfit*, and the work of the church is to furnish *output*. The justification of church work is to be found in the better doing of the work of the church. The workman must give some time and careful effort to the improvement of his machinery, but it is in order that the material commodities may be produced. This distinction runs all the way through the

world of human activity as the proper organizing principle. If we seek first the goal of genuine brotherhood, all things and all organizations which can justify themselves in terms of this supreme goal shall abide, and all destructive, delaying factors must pass away. One of the most hopeful signs of the advance of brotherhood is the increasing exaltation of human values high over all.

3. One more insight should mark the new individual in the socialized world. It is that the expansion of the spirit of brotherhood is by small essential groups being multiplied and their integrity preserved as they are co-ordinated into larger groups. God "hath made of one every nation of men to dwell on the face of the earth." He has also "set the solitary in families."

It is the utmost folly from the standpoint of inevitable interdependence to ignore, much more deliberately to assail the integrity of such a social institution as the family. The family is the abiding unit of society. One might as well hope to preserve this great college building after disintegrating the individual bricks and stones as to maintain a social order after the destruction of the family unit.

The unpractical and impatient victims of the fallacy of the universal want to see a unified humanity. They want a short quick realization of a world unity. They overlook the fact that "humanity" has never had its picture taken, for the good and sufficient reason that it is nothing apart from the co-ordinated individuals, and small groups making it up.

The achievement of world unity must make room for well-nigh infinite diversity. Unity must not be identified with uniformity. "We do not have to be twins in order to be brothers." With a clear recognition of ample room for the free play of diverse individuals and small groups in the only kind of unity that is practical in a human world, we may well rejoice that the Master's prayer of long ago

is being answered, "That they all may be one."

"The crest and crowning of all good,
Life's final star, is Brotherhood;
For it will bring again to earth
Her long-lost Poesy and Mirth;
Will send new light on every face,
A kingly power upon the race.
And till it comes, we men are slaves,
And travel downward to the dust of graves.
Come, clear the way, then, clear the way:
Blind creeds and kings have had their day.
Break the dead branches from the path:
Our hope is in the aftermath—
Our hope is in heroic men,
Star-led to build the world again.
To this Event the ages ran;
Make way for Brotherhood—make way for man."

Markham

COMMENCEMENT ADDRESS

THE UNIVERSITY: ITALY TO CALIFORNIA

PROFESSOR ROBERT W. ROGERS
Drew Theological Seminary

Bidden hither by your high and gracious courtesy, I have left mine own Atlantic, to me most dear from my earliest youth, and am come to speak to you, in whose ears is the heavy and solemn roar of the Pacific. The past, irreparable, safe beyond cavil and impervious to fate, lies in Eastern climes; the future, as I am glad to admit, seems to lie not in the East, but in your great, brave, uplooking, ever-expanding and expansive West. The occasion bids me speak modestly, and impulse within, as strong as any impact without, is of the same color. I have no mood of dogmatism, nor patience with its exercise, and venture to speak at all only because I have spent my life teaching, and love it more than ever; and having wandered far, seeing many universities, and, better still, hearing many men of distinction or of commanding authority, might at long last cease to hold my peace and the rather speak out the faith that is in me, and let enthusiasm for learning, admiration for scholarship, and glowing hope for yet better days find eager and passionate utterance.

Let us find places on the magic carpet and be wafted far from the Pacific, aye and from the Atlantic's western shores, until we make footfall by the shores of the Mediterranean, most interesting by far of all the seas of earth; and when we have beheld just one fair spot upon its borders, make thence to the northern Adriatic that in swift glances we may discern the very beginnings of that great system of instruction, inspiration and research, one

of whose later manifestations is before us to-day in this goodly place.

Our first landfall is at Salerno, at the head of its beautiful bay, the Gulf of Salerno. The town rises on its fair hillside, shimmering white in the morning sunlight, and the most conspicuous of its buildings is the Cathedral of St. Matthew, dedicated in honor of the Evangelist St. Matthew, whose bones are supposed to rest in its crypt. The sacred edifice was erected in 1070 by Robert Guiscard, and many a stirring historic event has its solemn bulk witnessed. In the south aisle is the tomb of Hildebrand, afterward Pope Gregory VII, who died in the little city on the 25th of May, 1085, after his banishment from Rome by Henry IV. His dust would make renown for any place, but Salerno has greater fame than he could give, and to that our thoughts may justly turn to-day. Behind the city of Salerno there is a medicinal spring of kindly healing waters known, as were so many other springs about the Mediterranean basin, to the Romans. Perhaps because of its virtues, real or supposed, the art of healing comes very early to note in Salerno. We know the name of a physician there in the year 848, and before 946 a French bishop *in arte medicinae pertissimus,* met at the court of Louis IV a practitioner from Salerno less learned than he, but possessed of such skill as great experience could give. Was this unnamed man representative of a school? We do not know, but soon after his day we learn that Adalbert, bishop of Verdun, came to be cured by its doctors, and thenceforward allusions become so frequent that we come naturally to the conclusion that a school to train men for that noble profession whose praise is world-wide was already in existence, and its European celebrity certainly goes back to the middle of the eleventh century. The city was then called upon its coins *Civitas Hippocratica,* and that gives us an inter-

esting clue to the basis of its teaching. Its students were learning the rudiments of their art of medicine and surgery from Hippocrates, the famous Greek physician, whose *Aphorisms* and *Prognostics* and other works were turned into Latin. He was born on the island of Cos about 460 B. C., and here we find him the chief teacher in Salerno sixteen centuries later.

From humble beginnings there gradually arose an organized school or college of doctors in Salerno, and thither resorted in 1099 Robert, Duke of Normandy, to be cured of his wound received in the Crusades, and to him was later dedicated Salerno's chief medical book, written in metre and containing medical aphorisms, some of which still live as proverbs of more or less wisdom. Here then in Salerno, in the teaching and practice of medicine, are the beginnings of university life and thought. In some sense every medical school that now adorns the globe may hark back to call Salerno *mater gloriosa,* and to take pride in her fame. Much has been learned of the human body and the healing of its ills since that remote day, and not seldom have men gone backward and were then compelled to turn and take place once more in the ranks which Salerno first formed. No greater illustration of this truth is needed than that Salerno had among its medical practitioners, teachers, and writers, several women, and it is not so long ago that women were newly admitted to that profession after a long exclusion in Europe and America. But let us away upon our magic carpet from Southern Italy and its fair Mediterranean shores, and having passed above the waters of its sister sea, the deep blue Adriatic, make landing fifty miles inland at the big city of Bologna, more than four times the size of Salerno. The city has for its motto only one word, but that a word of glory and of hope, *Libertas,* and on its old coins were the words of a splendid boast, *Bononia docet.*

Few cities in the world might boast more nobly, for to practice liberty and teach mankind these were noble functions indeed; and Bologna has much cause to feel a not ignoble pride.

The range of teaching at Salerno was disposed on the whole to be what we should now call professional, though there is no good reason to doubt that the Liberal Arts had masters and learners. In Bologna, on the other hand, at least as early as 1000 A. D., there was a fully recognized School of the Liberal Arts which attracted students from the far away city of Genoa, and more wonderful still we even hear that a famous teacher travelled all the way from Paris to study dialectic, and another perhaps scarcely less famous went to the same shrine to unlearn what he had previously known, and then returned to Paris and "untaught" the same to his pupils.

It is enough. Bologna was indeed a famous school in the liberal sense. It was, however destined to a greater distinction because it became a supreme School of Law. There had been schools of law before it in Rome, Pavia and in Ravenna, only fifty miles away by the Adriatic. None of these, however, may now claim such honors as rightly belong to Bologna in this noble science of the law. The rise to distinction is due to one man, Irenius, whose name is immortal. He was a master of the Liberal Arts and set himself to the study of law. His books were derived from Ravenna in part at least, and down he sat to study them alone and without a master. Let me remind you of the significance of the statement. We are living in an age of ever-expanding courses of lectures in our universities, and we are rearing generations of youth in the belief, and still worse in the active practice of the idea, that he who would learn anything must hie away to some university and take a course in it. It is a silly heresy, and I despise it most heartily. There's far

too much lecturing going on, and much too little insistence upon personal effort, private study. Let the teacher teach the beginnings, the A B C of the arts and sciences, and show the learner how to work, where to seek the knowledge, how to obtain it, and then, noblest and highest of all, how to advance and extend it. He who thus points the way, shows the landmarks, indicates the pitfalls, sets imagination on fire, and kindles enthusiasm, is a great teacher, and has no need to lecture on every phase of his subject. On the other hand, he who does not make course after course until college and university catalogues show almost unending lists in which knowledge of every detail has covered learning like a forest dark and forbidding, he who so fulfils the teacher's office makes his pupils parrots and not men, stifles imagination, smothers initiative and destroys originality. Irenius was not thus stifled. What he had learned was his very own, and with that possession he began to lecture on law as no man before him had done in Bologna. In due time, we know not how soon, all Europe knew that a great teacher had come, that a genius of commanding powers had risen, and students came. He seems not to have been a great writer. We possess indeed glosses of his which are still preserved which he wrote as he expounded the laws of Justinian. Nay, his greatness was as a teacher, and his books were the lives of his pupils, and they came from all Europe and went home again to sound their master's praises and to carry on their work. It was he who gave Bologna its renown as a School of Law, and it was he who, though he knew it not, became one of the founders of the whole university system, and we who now stand by the great Pacific sound his praise once more and remember the shores of the Adriatic.

First a School of Liberal Arts, then a far more renowned School of Law, so did Bologna move onwards

toward university character as students flocked to it from the West far beyond the beautiful Alpine borders of Italy. Then came swarms of youth from Germany, and Bologna became a cosmopolitan centre of learning; and then older men, ecclesiastics, sons of noble families, men of mature age who had already won position in the world by their own well-used experience of it; and as their numbers increased to three thousand, and then to five thousand, and then in 1262 to nearly ten thousand students, Bologna was now a student university, and all Europe made up its body of learners. It was now an open doorway to that profession which has always had political and commercial power and has it still as none other of the learned professions.

A place so great could not be left to students of the Liberal Arts, and to Doctors of Law. Another profession almost as lucrative in the middle ages as law, the practice of medicine, would deserve and demand a place and Salerno could point the way. There are names of physicians in Bologna documents from the beginning of the eleventh century, and by the second half of it there were doctors and professors of medicine and surgery, and graduations in these began, such as before had been in Arts and Law. The scientific school of medicine in Bologna begins with the great name of Thaddeus, who came from Florence and began to teach in the year 1260. With him began the study of anatomy, and under him the human body was dissected in the presence of students. Mundinus stood by him and became the father of modern anatomy, writing a text-book which continued in use for more than two centuries. There surely is glory enough for any city in all this, yet—did not time fail or patience forbid—there were far more to tell. I might show that its university was far in advance of its own age, and perhaps in some ways even of our age also. It early had women among its pro-

fessors, and among them Novella d'Andrea in the fourteenth century, whose personal attractions were so great that she had to lecture concealed from the eyes of her pupils by a curtain, perhaps lest beauty should fire imagination, and learning cease to entice when delivered by a teacher of such witching mien.

Ah, Bologna, how splendid was her contribution to art, to law, to medicine, how glorious the annals of her teaching work! I have walked her streets with reverence, peeped into lovely gardens through dim renaissance gateways, and felt a glow of happiness to behold the city which had made a contribution so noble to the modern history of learning, and a gentle and modest pride that I belonged in manner however humble to the ranks of teachers whose greater glories were Irenius and Thaddeus.

I have some fear lest I may have overtaxed your patience by speaking so long of Salerno and of Bologna, but I have taken the risk, and there was method in my madness. I have merely made these two universities object lessons from which I would now deduce some general principles and seek a lesson for this place and its beautiful environment. Let me mention the general principles first.

What is a university? There is a widespread notion—it is only a notion and a very erroneous one—that a university means a school where all the faculties or branches of knowledge are represented, or, to put it more crudely, a place where a student may learn any subject. There has seldom found place in the human mind a greater vagary, a more stupid misunderstanding. How shall we escape from it? There is but one sure way, and as safe as it is sure, and that is to go back down the long avenue of history and see what the word university really did mean in the beginning, and then see how the word was applied

to typical institutions later. Let us then understand distinctly and clearly that *universitas* means merely a number of persons. At the end of the twelfth and beginning of the thirteenth centuries the word is applied to a body of masters and students, or to either one or the other. It is in the beginnings not applied to a place, or to a school or to an institution, but, as I have been saying, is applied to the men who teach or the men who study. The correct phrase is always, "The University of Masters," or the "University of Scholars," or the "University of Masters and Scholars." What was the word for the institution in which the "University of Masters and Scholars" had their abiding place? The academic institution was called *Studium,* not a *University.* And what was a studium? It was what we might call a school, it was the place or institution in which the University of Masters and Scholars, the teachers and the taught, were at work. Now a *Studium* might be a local institution in which were gathered as learners only the youth of some town or city. Whenever it rose above the rudiments, the beggarly elements of instruction, and acquired a reputation sufficient to attract students from a distance, it was then called a *Studium Generale,* and that expression signifies not a place where everything was taught but a place where one of the higher faculties was taught, namely, theology, law, or medicine, and taught in such fashion as to be able to invite students from beyond local borders, and to attract them. At the beginning of the thirteenth century there were only three institutions which dared claim the great title of *Studium Generale,* and they were Paris, with faculties of theology and liberal arts, Bologna, with a faculty of law, and Salerno with a faculty of medicine. When the fifteenth century came, the word *Studium Generale* dropped slowly out of use and the word university supplanted it, and acquired the general mean-

ing of the institution as well as the doctors, masters, and scholars who formed it.

In its original historical sense, and its only correct sense, a university is *not* a place where every subject may be taught or where every faculty is represented, but an institution where students may find instruction in one or more of the higher branches, or in one or more of the professional studies. Salerno was a university when it taught nothing but law, and it was neither more nor less a university when it added the liberal arts, nor when it began the cultivation of medicine. Paris was a university, aye, and a great university, when it taught only theology and the arts. I repeat that the test is that the instruction shall be higher and not in elementary subjects and that it shall be so well ordered, so skillfully given, as to attract not a *Studium Locale,* but a *Studium Generale.* As in those days, so also in these days wherever the word university is correctly used, it has that significance and no other.

In 1876 there was opened in Baltimore a school of the higher learning, and it taught only by one faculty called the Faculty of Philosophy, which is the modern term for what was in the Middle Ages the Faculty of Liberal Arts, but it was a university, it was the Johns Hopkins University, and it had every claim, every just and righteous claim to that style. It was a university though it had few, very few professors, but they were supreme, each in his own field, and they attracted students at once not from Baltimore or from Maryland only, but from Massachusetts, and Ohio as well, and soon the fame of that university was world-wide, and Germans, English and French came gladly to its hospitable halls. It was small wonder that they came, for Silvester was professor of mathematics, Gildersleeve was professor of Greek, (where else was there a Hellenist his superior?), and Morris,

teacher incomparable, was there to represent collegiate Greek and Latin, and Remsen was professor of Chemistry and Martin of Biology and Rowland, professor of Physics, a genius indeed. And they who stood by them to help or to direct in other studies were Adams in history, Elliott in Romanic languages, but little less distinguished in promise, if not in performance. O, aye, the Johns Hopkins University was a real university when it had only its Faculty of Philosophy and it had no other when I came within its inspiring influence in 1883. It has a Faculty of Medicine now, and a Faculty of Engineering, but is not one whit more a university now than it was then.

The ideal is not many faculties, vast ranges of subjects, multitudinous courses; it is men of distinction as teachers learned each in his own subject, scholars in that lofty and ennobling sense, men of light and of burning, blazing enthusiasm, men whom Chaucer described in the musical phrase:

"Gladly wolde he lerne and gladly teche."

Anything more? Yes,—students, students who study, students who feel within their glowing veins the warming fires of ambition, not crazed with an absorbing athleticism, not dull, witless, stupid, *blasé,* not careless, shiftless, time-wasters, not dull driven cattle, beaten into a semblance of industry by a vast machinery of coercion administered by a resistless Dean. Professors make or unmake a university, but so also do students. They must work together. They must be fellow soldiers, *commilitones* as they were often called in my university days in Germany long ago. Let us not forget the old phrase in the Middle Ages, "University of Masters and Scholars." If the professors have responsibility in making a university so also have the students. The students of to-day will be alumni or alumnae to-morrow,

and into their several walks of life must carry the habits formed in student days either as they now are, or begin a fierce battle to supplant them by newer and better. During all the rest of their lives they will be representing the university, and in some or many particulars influencing its decisions, and raising or lowering its prestige. The influence of students far outlasts that of the professors. The professors die or retire while the students who have filled their lecture rooms survive them by years or decades. Surely this is no light responsibility. Would there were found some way of impressing every freshman with its grave reality.

Come now, let me turn and apply some of these lessons from a glorious past to a living present, and so far as may be to a future of hope and actuality. You have honored me with a commission to speak to this University, to the Faculty whom I may salute as colleagues, though my own seat of learning be far from them, to men and women now in the next moments to be admitted by the conferring of degrees to this brotherhood begun in Salerno and Bologna ten centuries ago, and still growing and developing, and to such others of the student body as voice may reach today in this charming environment. I have somewhat to say to you collectively if not individually, as a whole if not in classes, differentiated by age or opportunity.

The first word is this, that this is a university; it has earned and deserves that splendid appellation. It is a *Studium,* a place of higher studies, a place admirably qualified to admit the youth to the ancient degree of Bachelor of Arts, and it is in that ancient and venerable sense also a *Studium Generale,* a place fit to attract and able to attract students from a distance, and not only from this rich and beautiful city. That being true and beyond all dispute on solid historical grounds, it is doubly and trebly true when one remembers that besides the College of

Liberal Arts this University rises to the mediaeval standard in the possession of faculties of theology, law and medicine. There is no need to labor the point. Let all who share its life, whether as teachers or taught, lift heart and soul in a great and noble pride in that already achieved, in the place which the University of Southern California justly holds as an heir of Salerno and Bologna, aye of Paris, and of Oxford and Cambridge, and of the early foundations of learning in our own land. This University is sister to the best of them, and may claim the right to emulate their glories and so far as may be to escape their mistakes. It is a high calling and very deeply responsible, and in modest hesitation I must speak about it and ask you to consider how it should be met.

The first question is, what shall there be taught to those who seek the baccalaureate degree? I am scarcely old enough to face the embattled hosts which threaten any man who in this day dares to suggest *any* subject as *necessary*. Every subject has its defenders, and so it should; but alas! every subject has its opponents. I shall not speak dogmatically, nor *ex cathedra*. What is now to be spoken is a declaration of faith, not a challenge to controversy. I shall decline the tournament, refuse to enter the lists. I shall flee and let those who remain and whose business it is to decide, to declare their faith, announce their principles and put their conclusions into effect as they have authority and right to do, and then to forget all that I have said. What subjects should here be taught? O, I have no hesitation in declaring my faith that they should be classics, mathematics, history, philosophy, modern languages and one science.

I have mentioned science last, not as a climax, for my climax is at the other end of the line, but because I would say a word about that first; and I am so old a hand at teaching as to know that the thing mention-

ed last needs an early word of re-enforcement or it will follow its predecessors out of memory into vacuity. I feel quite sure that a man who has to live in the world of the present ought to know something about scientific methods of thought, processes and research, and the quickest and surest way to give such an insight is to teach one science, teach it well, teach it fundamentally and as much of it as the reasonable partition of time would allow. One science and one only, not chips and bits and smatterings of two or three sciences, as is too often the custom in America, with the result that the befuddled mind carries away no real knowledge, no sure grasp of the scientific method.

What beside this then? Surely, enough of two of the modern languages to be able to use them as tools, as reading tools, and no more, because no more is likely really to be possible. Philosophy, aye, enough of an insight into the methods of philosophical thinking that the educated man may at least have heard of the problems of thought, of the universe and of man upon which the wisest men of all ages have most seriously have considered. History; yea, that the youth who are to be to-morrow's men and women may catch at least a fleeting glimpse of the long procession of civilized men coming up through barbarism out of savagery. Mathematics, that the mind may see the foundations of all physics and all astronomy in that glorious science of numbers, the one sure and surely known science which deserves the high epithet pure,—pure science. The classics,—it is my climax and so it deserves to be. Our civilization, the whole of it stands supported on two great columns, one of them is Hebrew, for our religion is Hebrew in origin whether we be Christians, Jews or Muhammadans, for all three are rooted in that same soil so amazingly rich in religious ideas and aspirations, so charged with a passion for God. The second column is

Greek, and the major part of all beside religion that our civilization boasts is derived either directly from the Greeks or indirectly from the Romans. O, how in inexpressibly sad will be the state of the coming generations if educated men and women are denied the classical training, whether the denial come through their own stupid refusal, or because of the mistaken policy of the educational leaders who are gradually elbowing the classics out of college and school. I make bold here and now to utter this protest in the ears of all who hear, and to beg all of a different opinion once more to weigh and consider the claim, the just and reasonable claim; of the classics, to a high and secure, though not an exclusive place in education.

In some such way as this so briefly sketched I should wish every man or woman to be educated in college, for I am fully convinced that with this foundation any structure might be reared. Whatever the future career, whether in one of the learned professions or in science, literature or fine arts, music, sculpture or painting, the Bachelor of Arts would be ready to rear a substantial structure of high ideals and modest or lofty achievement.

Yet when all is said it matters far less what is studied, what subjects are pursued, than that what is done be done thoroughly. It is far more important to know a few things well than many things superficially. Let me speak boldly. The curse of American education is twofold multiplicity and superficiality. Our boys and girls from their youth to manhood are taught too many things, and few or none deeply and broadly. We graduate from schools and colleges hosts who are clever in speech, sometimes brilliant, who can keep up a conversation on almost anything from astronomy to zoology, but who know nothing well, nothing thoroughly. I have spent much time in Europe, and everywhere in my experience and every-

where the testimony of others is the same. Nobody knows anything as do the English, German and French students of the same age. A graduate student who has spent four years in college and is promoted Bachelor of Arts comes forward as a candidate for the higher degrees in philosophy or theology and brings to the new task so little, so pathetically little that is definite, sure, positive, reliable. He has studied German but he cannot read some scientific papers in that language. Is he a student of History? He has read Latin in college, but he cannot read a document in Mediaeval Latin. He goes to Oxford for higher studies and is hopelessly outclassed by a boy five years his junior who has just come up from Eton or Winchester, and can really read Latin. O, I have often been sick with shame to have heard Oxford professors declare that some American is clever, but that he knows nothing, and worst of all to hear them prove it. If there were some way by which every student should be compelled to study half as many subjects he would know four times as much about any one of them. The cry and call of the age is for men and women who know something and can do something with it. Fewer subjects, a greater intensity, and the beginning is made. Yet even that is only a beginning. Our next generation must do much better than we have done, or it will not do so well. It must learn a few things and learn them well, it must learn the supreme gifts of patience and perseverance. It dare not face a future greater than the past which now stretches behind us until it is willing to pay for a higher excellence in terms of toil, patient, persistent until the goal be won.

The whole learned world on the Atlantic seaboard was ringing, as I set my face westbound toward you, with plaudits of a woman and her splendid achievement. A quiet, modest little lady had come from Paris, Madame

Curie, to receive the gift of a gram of radium, and colleges and universities clamored for the honor of doing honor to her, and naught that could be said of her was fulsome or overwrought. It sounds like a romance, but it is the romance of labor, prolonged, patient persevering. Here is a woman of unusual gifts and of sound preliminary training. She is born Marie Sklodowska in Warsaw and is a student of chemistry and metallurgy in Paris under Pierre Curie, whose wife she afterward became. They worked together in his laboratory and there, while examining specimens of pitchblende from which the element Uranium is extracted, she had the splendid good fortune to discover a new element which she named Polonium, in honor of Poland, her native country. There might be some other mysterious element concealed in that same pitchblend, large residues of which were found in Austria. In that search she handled twenty to thirty tons of these residues, dissolving, fractionating by re-crystallization with ever increasing strength until at last her unflagging perseverance was rewarded by the discovery of yet another element with the strongest radioactive properities yet known. She had discovered Radium, an element, her own element. Her early training, you may be sure, was sound and thorough, not scattered, aimless, discursive like an American elective course. Yet good as it was it would have been in vain but for that magnificent display of hard and continuous labor. There is no other way, and if education fails to make that lesson plain it has failed to educate; the next generation will not rise to its opportunities nor achieve its possibilities. Am I sounding what may seem to be a minor note? Nay, far from it, this is a clarion call to this sovereign commonwealth, to this astoundingly beautiful, this lordly and puissant city here, to build gloriously a great university worthy of the past and its present achievement, but worthy also of the unmeasured and immeasur-

able opportunity of to-morrow. Nothing is too great, no ideal too lofty, no hope too rich and deep for what may here be achieved. Upon these foundations already well and truly laid let great and numerous buildings stand. Let their halls resound with the hurrying feet of tens of thousands of high-spirited youth, making haste to laboratories, libraries, lecture rooms and seminaries of the highest research. Challenge the greatest universities from here all the way to Harvard, to Oxford and Cambridge, to Dublin and Edinburgh, to Paris and to Berlin. Emulate their achievements, learn to avoid their mistakes, and be content with naught less than equality with their best and noblest. Gather here the most gifted, the most ambitious, the most industrious youth, and bid them sit humbly at the feet not of cheap pedagogues, but before the faces of the most learned, the most skilful, the most inspiring men and women as their teachers. Let those who teach remember the glorious succession in which they stand from Irenius in Bologna to our day, and as they think how narrow was the Adriatic, and how vast the Pacific, how insignificant Bologna, how great and prosperous Los Angeles, let them do and dare mighty things undreamt before, nor yield to the enticement of any lesser ambition.

The past is secure, the future is here in the making, and the responsibility is ours. I have spoken with passionate earnestness, mindful of the past, eager to see a greater present, and full of hope for a larger future. The present only is ours in this mighty and inspiring task of education. I am not tremulous with fear, but buoyant with hope, and grimly determined to give my best to my profession, the profession of teaching, and to honor all who serve in a calling so ennobled by the past, so deeply needed in the present, and the present is only a moment, a fragment of time.

SPECIAL EXERCISES IN CONNECTION WITH JAMES HARMON HOOSE HALL OF PHILOSOPHY

THE MISSION OF PHILOSOPHY

PROFESSOR JOHN WRIGHT BUCKHAM
Pacific School of Religion.

California has passed off the pioneer stage into the constructive period,—a fact which this substantial and beautiful building, with the mental construction which it is to foster, attests.

It is a question of great moment what sort of philosophy this great commonwealth on the shores of the Pacific will construct. That this opulent and favored land, with the smile of nature resting upon it, is to play a large part in the future of civilization, none of us doubts. What will be the color and character of the thought-life of the Pacific slope? That is a subject for serious and responsible consideration.

It is a cause for congratulation and gratitude that the foundations of philosophy in California have already been strongly and, as it seems to us, soundly laid. At all events they have been laid in an idealism which accords well with the wide and hopeful outlook of our state, and by two men whose names rank with the highest in American philosophy,—Josiah Royce and George H. Howison.

It is one of the significant incidents—no accident—in the history of human thought that America's greatest thinker, after Jonathan Edwards, was born in a California mining town, caught from California hillsides and water

the light that never was on land or sea, was inducted into the priceless treasures of human thought and imagination in the library of the University of California, began his career as a teacher in the same institution, and laid the foundations of his comprehensive and majestic system of idealism here in the breadth and freedom of our unfettered life.

It is fitting, too, that his literary executor, and leading interpreter, Professor Loewenberg, should also be teaching at the same University.

Nor was it an accident that our most stalwart and forthright American advocate and defender of pure personal and theistic idealism, George H. Howison, wrought and taught in California, proving himself one of the most vigorous and able teachers of philosophy our country has produced, training in his classrooms California youth to become influential teachers of philosophy and leaving the stamp of his firm and intelligent convictions, his moral earnestness and his faith in the soul of man, deeply imprinted upon the life of this coast.

These two men, with their pupils and sympathizers, together with such teachers of idealism as James Hoose and aided by such discerning lovers of philosophy and of California as Professor George H. Palmer, have given direction and character to our Pacific Coast philosophy.

And now in this university has sprung up the earnest and able advocacy of another form of idealism needed to augment and supplement—should I rather say to crown the idealism of Royce and Howison, in the Personalism indelibly associated with a name that belongs with those of Edwards and William T. Harris and Royce and Howison as the fifth in our great pentad of idealists, Borden Parker Bowne.

It means much for California to have such a philosophy taught here and promulgated through *The Personalist*.

May it find wide acceptance and appreciation.

This deep and thorough grounding of the philosophy of California in a vital idealism, moral and religious as well as critical, is surely most propitious for the future. Yet if it should mean the restriction of our philosophy to the mere defense and maintenance of a closed system of idealism the issue would be quite unworthy of the high calling of a progressive social community.

I

As one looks out upon the field and task of philosophy today, he cannot but be struck by the urgent summons that comes to this ancient and indispensable servant of the intellect and life for the enlargement of its scope and a more adequate conception of its mission.

Owing in part to the breaking down of authority, in part to the vast accumulations of knowledge, and in part to the intellectual, moral, and religious confusion following the Great War, there is at present a chaos and bewilderment in the general view which philosophy is called upon to do its part to solve. And it is a large part.

The peculiar need of our day is not so much investigation as interpretation. I do not mean that investigation has not been of the utmost service, or that its task is complete—far from it. Nor do I overlook the fact that we are sorely in need of motive, which it is the function of religion to furnish. But we are in danger of being crushed under the accumulated stones of investigation, and of being unable to release the fine power of motive, until we can reach a clearer conception of the universe, of life, of ourselves and our duties and possibilities; in a word, a more ordered and unified thought-world.

Now it is the office and task of philosophy to do this. Science (and by science I mean, of course, natural science)

cannot do it, her outlook is too restricted; art can not do it; religion can not do it. Philosophy is the appointed interpreter. Here is the rational and ordained task of intellectual interpretation. Not that this is her only task. She is also the critic of life, but true criticism is part of interpretation. She has her especial tasks as well, epistemology, ontology, logic, psychology—these are important provinces within her vast domain. Within each of these it is her duty to toil arduously and incessantly, to specialize, to perfect a technique. Yet that is not all of her duty. These things ought she to have done and not have left the other undone. And the other—i.e., the task of surveying, determining, relating, evaluating the process and control of knowledge—is a mission, the neglect of which leaves the human world in confusion and in mental and spiritual incompetency.

Instead of exercising this essential office, what have we had of late, as the dominant types of philosophy? Pragmatism, which has elevated a truth about truth,—i.e., that it ought to work—into the place of truth itself; Instrumentalism, which has reduced philosophy to the apologetic and handmaid of science.

All of these recent developments are, to be sure, corrections and contributions. It was time that idealism should be called upon to show its faith by its works. It was time that the instrumentality of truth for action be recognized. It was time that the truth of science, for scientific purposes, should be given its place, as having a reality of its own. But to make any one of these aspects of truth a sufficient philosophy, laying its mandates and restrictions upon all active philosophies, is surely as unphilosophical as it is ill-balanced and hampering.

No, philosophy has a larger and more essential vocation than this. With all its esoteric and technical problems—and they are many and difficult—it is charged with a far

wider mission and may not rightly leave us in a time like this, in an uninterpreted, unrelated, un-unified world such as that in which we are living, while it spends itself in the elaboration of its technique and in contests over intricate issues.

Where there is no vision the people perish. Where there is no interpretation of life the people wander in darksome paths; and philosophy lapses into "lunar politics" or becomes, as Falton Taylor describes it, a swamp in which the fire-flies flash and flash and all is dark again.

II

What is interpretation and why is this the task of philosophy?

Interpretation is the bringing out into more intelligible form and relations of inner meaning and significance.

But is not that the work of science? No; science has to do, not at all with intrinsic meaning, but only with extrinsic meaning, with method and utility.

Well, then, is not interpretation the office of poetry and of art? No; the mission of literature and of art is rather that of expression than of interpretation.

Not that expression is less essential and vital than interpretation. Experience must find expression in order to come to its fulfilment and its power of communication. But experience is not interpreted until its interior meaning, with reference to experience as a whole and knowledge as a whole, is clarified and explicated; and that is the office of philosophy, by the way. I do not mean, of course that philosophy should or could monopolize interpretation. Imagination is essential to interpretation, and hers is intellectual rather than imaginative interpretation.

Incidentally, this is the reason why philosophy deserves an ample and honored place in university and college ed-

ucation. It is essential to a *Lebenanschauung* as well as a *Weltanschauung*.

This is not to say that all minds feel equally the need of philosophic inquiry.

In my own college, the University of Vermont, where philosophy has had a large and honored place, under the aegis of James Marsh, the American exponent of Coleridge, the Senior Class in my day—thank Heaven! was required to take a course in Watson's Selections from Kant's Critique, under Professor Henry A. P. Taney, a worthy compeer of Bowne and Royce and Howison. There were two brothers in college at that time who took this course successively. The elder was a poet and humorist to whom Kant seemed the prince of befoggers. The only effect of the course upon him was to stimulate him to write, though not to publish, a burlesque which he entitled, "A Critique of Pure Unreason."

The younger brother came to the course, with a different mental make-up and interest, and to him Kant brought awakening, nutriment, light, and leading.

Are all poets? Are all philosophers? Have all the gift of expression or interpretation? And yet the more excellent way is, with charity toward all, to recognize that in the academic body there is need not only for investigation and for utilization but more abundant need for expression and for interpretation.

What are some of the particular tasks in interpretation for which we look to Philosophy?

In the first place, we look to her for a philosophy of science, or should I call it a philosophic interpretation of science, for an answer to the question: What kind of reality does it furnish? How far is the scientific knowledge of our world a final and complete knowledge? What are the values and what the limitations of science?

Science herself cannot answer these questions, for her

vision is limited to her own realm; nor can a philosophy of science that has no prerequisites save those of science herself.

And yet there is a large company of educated men and women today who have no vision beyond science; to whom science is coterminous with truth itself.

It is the ancient error of the borer in the log taking his log for the universe. The world of science is a very real, big, and expanding world; but it is not the total world of reality. Who shall teach the scientist that fact? Who but the philosopher? But the scientist will not listen if the philosopher begins by deriding his world and denying it all reality and worth. Let the philosopher first learn something of what science means in its own right, and then he will be able to interpret that meaning as well as the limitations.

If it is a sign of ignorance and provincialism in the scientist to "vanquish Berkeley with a grin," so is it for the philosopher to vanquish Einstein with a "What! At last!"

Then there is Religion. Who will give us a philosophy of religion, tell us the meaning of religion, its place in life, the nature of its experiences and convictions, as related to the whole experience and life and knowledge? Not the man of religion himself. He knows what religion is in itself, to be sure, for he has had the experience, and he will rightly distrust and ignore anyone who tells him that it is not a reality. But religion is not all of life, nor all of truth. Who shall say what kind of truth it is, what are its guarantees, how it is related to other forms of knowledge, to life, to the universe? The theologian? No, not he; at least not unless he is also philosopher and can not only interpret religious truth to itself in terms of doctrine but can also relate it to the whole sphere of truth and life, of which may we not say it is the center.

A philosophy of religion—yes, and of Christianity—we

are suffering for that—a clear and intelligent appraisal of the place and meaning and warrant of religion; and until we have it many thoughtful minds will not enter into the full possession of the pearl of great price.

And History—what do we need just now more than a philosophy of history,—not a lean Hegelian logic superimposed upon history—not merely an outline sketch with side remarks such as that with which Mr. H. G. Wells has at once regaled and tantalized us; but a genuine philosophy of history that is able to decipher the moral and spiritual as well as the natural laws that run through it and to reveal something of the movement and purpose—if such there be—that guide its mysterious interplay of freedom and determinism, of trial and error, of progress and retrogression, so that we may know whether we may indeed believe that

"thro' the ages one increasing purpose runs."

One of the most interesting and suggestive philosophical queries raised of late is: What is the meaning of the concept progress? How much more is there in it than the passage from an indefinite, incoherent homogeneity to a definite—coherent heterogeneity? How much of moral purpose, of end-seeking.

And a social philosophy—to supplement and carry forward into today and tomorrow the increments of the past. How greatly do we need that! Not a new appendage of sociology and economics, but a true social philosophy.

What in fine does this strange yet homelike, trustworthy-deceptive, beautiful-deformed, happy-wretched, progressive-battling, good-evil, true-false old world mean anyway, and what does life mean, and what do we men and women mean? That, in short, is the problem of philosophy, not to be solved by her alone, without aid, but surely not to be solved even tentatively without her. A

hard and complex and continuous problem, but it is not an importunate one and men will not let philosophy turn aside from it to any temporizings of pragmatism and instrumentalism, to any burying of her head in the sands of agnosticism and refusal to answer it, or to do her best.

These age-long questions of ultimate meanings are not gratuitous, nor will they yield to any world-weary ennui or occupation with transient practical concerns. They confront us upon these fair lethal shores, where it is not always afternoon, any more than anywhere else in God's world, just as they confronted the awakened minds of Athens and Alexandria, of Jerusalem and Ephesus, of Paris and Jena, of Oxford and Edinburgh, of Concord and St. Louis. And unless we play the man and face them freely and bravely and seriously, no conquests of the material universe nor triumphs of applied science, no delight in the beauties of nature, nor joy in the creation of art will satisfy that longing to know which disturbed and rewarded the minds of Job and Heraclitus, of Paul, and Origen and Aquinas and Berkeley and Kant and Coleridge and Edwards and Royce and Howison and Bowne.

I am not saying that it is the province of philosophy to completely solve these profound problems nor even to reach down into the very heart of ultimate reality. Experience alone can reach the ultimate realities. But it is the necessary function of philosophy to examine, to criticize, to interpret and to relate our experiences, and thus to bring us out into the light.

There are two other cognate tasks of philosophy of which I can speak but very briefly. One is that of evaluation. This is a task that lies so close to that of interpretation as to be almost identical with it. And yet it is not quite the same. It is the field especially of ethics.

Since Lotze and Ritschl, we have heard much of the philosophy of values. It is well that we have. Philosophy

itself is a process of evaluation, an assessment of values, or worths. We have been confounding value with utility long enough; thereby gaining the whole world and losing our own soul. Philosophy cannot itself give us the profound values, but it can tell us where they lie and teach us to take nothing else for them.

A third task of philosophy is that of unification. This too is a most real necessity if we are to live in an intelligible and coherent universe.

Doubtless the zeal of Platonists and Hegelians, and of Professor Royce, carried their principle to an extreme, imposing upon this "mosaic" world a unity which flies in the fact of its multiformity. It was just and pertinent for Professor James to deride a unity that gives us "a black universe, rounded in and closed."

We may not rightly ask for unity at the expense of reality. Nevertheless if there is some sort of unity in the flowing world of experience as well as in the perceiving and conceiving mind, it is no less than a life and death matter that we find it and live in accordance with it. It is the task of philosophy to enable us to do this.

It is hardly within the range of my subject or the limits of my time, to go on to describe the type of philosophy such as is alone adequate to give us an ordered and unified thought-world.

Yet I cannot refrain from stating openly what has already been implied, that I can conceive of no philosophy at all adequate to undertake the interpretation, evaluation, and unification of knowledge save one that grounds in idealism, that begins with the mind itself, or rather with that which underlies and includes the mind—the person. Start with the external world and when you reach mind, consciousness, the self, it is likely to appear only in a phenomenon, or—Oh, final disenchantment—epiphenomenon of nature, and we find ourselves in the midst of that

mud and scum of things where nothing sings, which Professor Bowne entitled philosophical naturalism.

Start with the self, the person—and where else can one start?—and you have, first of all, other selves with whom one is indissolubly bound up in a society of selves, then *Supreme Self* from whom the selves come and in whom they live and move and have their being; and beside these a body of a nature, an external world, to which also we are most intimately related yet not indissolubly—and of which we have a knowledge, real and reliable in its kind, but secondary to that of each other and of God.

The day for the extreme idealism of Berkeley, or for the dualism of Descartes, or the critical and agnostic idealism of Kant, or for the monistic idealism of Royce, or for the nature-ignoring idealism of Howison, has passed. We need an *amplified idealism*,—one that is more deeply personal, social, spiritual, yet that also recognizes an external world which has its own degree and kind of reality, a world which we can understand and use aright only as we make it serve a higher moral and intelligent creative will.

Yet I am not here to plead for idealism, or for personalism, but for an enlarged conception of the mission of philosophy, for a philosophy broad enough and brave enough to unify, evaluate, and relate the varied forms of knowledge, and serious and wise enough to define and interpret our manifold experiences and the ultimate realities which sometimes loom and sometimes gleam through our mysteries; a philosophy that will give us a unified and evaluated thought-world in which we can live sanely, reverently, rationally, and construct a civilization meet for such a great God-given commonwealth as this on the shores of a world-uniting sea.

To such a philosophy may this Hall be dedicated!

DOCTOR HOOSE AS COLLEAGUE

ROCKWELL D. HUNT.
Dean of the Graduate School, University of Southern California.

There is something presumptuous in my speaking of James Harmon Hoose as my colleague: to me he was more like father than brother,—and yet he was the most brotherly of men and paternalistic not at all.

My personal acquaintance with Doctor Hoose dates from my coming to the University of Southern California in 1908. Yet I had already learned of him as a leading force in the University.

At once I perceived his dominant place among his colleagues. Highly respected by all, transparently genuine in his qualities of manliness, he excited the jealousy of none, but won the esteem of each.

Doctor Hoose gathered up into his life a wide range of experience. His educational work included all grades of instruction from the secondary school to the graduate work of the university. He organized the Normal School at Cortland, New York, and was for many years its president. He was much in demand as a lecturer before teachers' institutes. As a teacher of teachers he was a shining light. In the course of his university experience he taught many subjects; history, economics, sociology, philosophy, pedagogy, and still other branches, but primarily he was a teacher not of subjects at all but of men. This fundamental *human element* he consistently instilled into the minds of his students, many of whom are today vitalizing and enriching their teaching and their preaching because they once sat at the feet of this great teacher.

While not placing his main reliance in a multitude of books and not given to the use of many "authorities," Doctor Hoose did not neglect the best sources of information nor the helpfulness that comes from associations in learned societies. He was a member of the National Educational Association, the National Council of Education, and the Southern California Teachers' Association. For many years he maintained membership in the American Historical Association, the Historical Society of Southern California, and the American Association for the Advancement of Science. His relation to the Holland Society of New York perhaps betrayed in him something of ancestral pride: to those who knew him his Phi Beta Kappa key, so modestly worn, was scarcely needed as an outward symbol of his sturdy scholarship.

Doctor Hoose was intelligently and sympathetically interested in the work of his colleagues while at all times a staunch and loyal supporter of the President of the University. President Bovard could always rely upon him for wise counsel, mature judgment, and broad vision when confronted by grave problems of administration.

To his younger colleagues he was always an inspiration. The fact that one occupied a department only remotely related to his made no difference; his interests—big, cultural, *human,*—knew no departmental bounds. He treated even the inexperienced, the mere embryonic professor, with distinguished consideration. He had a happy faculty of removing the sting, where criticism was richly deserved, and leaving only the helpful, constructive suggestion.

A few brief sentences from younger colleagues will express the high esteem in which he was held far better than any words of mine.

Roy Edwin Schulz:

"Dr. Hoose—our 'grand old man', than whom no young

instructor ever had a better friend, a more fatherly adviser, a more willing helper. His kindly criticism, his generous praise, and his inspiring encouragement are among the most pleasant memories of service in the University of Southern California."

RUTH W. BROWN:

"Many of the most valued memories of my first years upon the faculty of my Alma Mater center about Dr. Hoose, who was then a dominating figure in the institution. Dr. Hoose possessed the simplicity and kindliness that accompany true greatness, and his cordial and sincere consideration for his younger colleagues tended to strengthen self-respect and to create a sense of mastery in those with less experience than his own. Thus the gratitude and reverence that I had felt for Dr. Hoose, the teacher, were deepened and enriched by later association."

HUGH C. WILLETT:

"Amongst the many influences woven into my life during student and early teaching days at the University of Southern California, I can now trace most clearly the influence of the life and teaching of Dr. Hoose. He was a great teacher and a good man. His method of teaching demanded straightforward, clear-cut and rigorous thinking on the part of his students. His philosophy, life and manhood commanded the admiration and respect of all who knew him."

Not only was Doctor Hoose broader than any department of study,—than all departments in combination; his perspective was that of life itself. It may be said that the motto of his life was, "Light, more light!" He delighted in

the youthful life about him; the strength of mature manhood challenged his admiration; the mellow tints of age found response in his heart of hearts. In 1907 he gave a toast at the Annual Banquet of Phi Alpha fraternity on "Living While You're Young," in which his closing thought was this:

> "Young life is beautiful;
> Adult life is grand;
> Old age is sublime;—
> provided, the life is stalwart in noble purpose."

How delightful it was to observe the affectionate esteem in which he was held by the students, to note his loyal enthusiasm at an athletic or forensic contest, to see him in action before a student rally! No faculty member was more consistent than he in attending exercises where students participated; none more faithful to visit the sick or unfortunate; none more loyal in upholding the fair name of the university.

If a colleague did well, Doctor Hoose never withheld his praise or commendation; if he did ill, the genial Doctor generously refrained from carping criticism and spoke words of kindly helpfulness. He could be emphatic but never rude; straightforward and sincere, he knew not how to equivocate; he condoned no faults, but was never bitter.

Such was my colleague, James Harmon Hoose, he who wrought so valiantly with strong hand, flashing eye, and stalwart mind, and into the fruits of whose labors we enter this day. I have now reached well into middle life. As a student I have had a few great teachers; as a teacher I have had many promising students: of my numerous colleagues Doctor Hoose stands forth as the type *par excellence*.

In contemplation of such a character we may take a lesson from the life of him who gives name and spirit to

the memorial we gratefully dedicate this day. May the kindly spirit, the noble idealism, the inspiring comradeship of James Harmon Hoose never depart from this building. And may the University of Southern California ever hold him in faithful, grateful remembrance who gives his honored name to James Harmon Hoose Hall of Philosophy!

DOCTOR HOOSE AS TEACHER

PRESIDENT TULLY C. KNOLES
College of the Pacific.

It is very difficult for me to speak upon this occasion, for my feelings are comparable to the feelings of a son speaking of his father. My relationship with Dr. James Harmon Hoose, to whom this beautiful section of the George Finley Bovard Building is dedicated, was so intimate for so many years that I came to look upon him not only as my close personal friend, my best teacher, but my intimate companion and guide: my relationship was filial. For thirteen years I had the great honor and privilege of being associated with him as an undergraduate and a graduate student, a part of that time teaching as an assistant to him, and for the rest of the time as head of the department of History.

It is only fair to Doctor Hoose to say that he had to win his way in the University of Southern California. After spending twenty-two years as President of the Cortland Normal School in the State of New York, he came to California with what he thought was a competence. Investing in California lands, which were not profitable at that time because of continued drought, he found it necessary to begin again and was offered a position in the University of Southern California where, in all frankness, he was not appreciated by the trustees; and I break no confidence when I say that the President at that time, Doctor George W. White, found it necessary to pay a part of Dr. Hoose's salary for two years out of his own funds in order to retain him in the institution until the Trustees were satisfied with his work. The present President, Dr. George

F. Bovard, who sits on this platform today, was asked if he intended to keep Doctor Hoose in the institution when he assumed the responsibilities of the Presidency in 1903, and his answer was, "Most assuredly." Today all of the trustees who have served since Doctor Hoose became a professor are united in doing honor to him and in recognizing him as the great scholastic force in the building of the Greater University in the first decade of the twentieth century.

From the very first, Doctor Hoose was cordially received and appreciated by the members of the Faculty. They at once saw his worth and knew his inspirational value to themselves as well as to students. To show his influence and also the strength of his service it is only necessary to note that today more than a score of men are giving full time to the classes which he formerly taught.

The growth of the popularity and influence of Doctor Hoose followed the same line with the students that it did with the trustees; for instance, when he first began to teach, a picture of the door of his classroom was printed in the college annual with the legend, "Abandon *cum laude*, all ye who enter here." For years before his death his classrooms were so crowded that it became necessary for him to meet them in sections, and the students knew that the grades they received in his department meant his best judgment of them, and they desired the work and experience much more than they desired the grades. Of all teachers I have ever known he had least respect for persons. His most intimate friends were treated exactly as were those who were scarcely acquainted with him. Two instances stand out as typical of his attitude: At one time Doctor Hoose was in the habit of sending every member of the class to the blackboard to answer certain questions which he would propound. One young man was in the habit of taking a position midway from the ends, and know-

ing that the good Doctor invariably asked for recitations beginning at one end or the other, he was sure to make an excellent recitation no matter what he had written upon the board. On one occasion, after having made a very brilliant recitation, which recitation had no connection with the material he had in view on the board, Doctor Hoose said very quietly, "There is nothing personal in what I am about to say, but I once knew a man in New York who knew nothing of therapeutics or materia medica, but he was great on fits. If he could throw a patient, no matter what his difficulty was, into fits he could cure him. Next, please."

On one other occasion six of us, all graduates and all teachers, were taking a course in Kant's "Critique of Pure Reason;" we met but once a week for a two-hour session. We were just seated when Doctor Hoose asked your speaker to read a certain sentence on a certain page. He did so and was told to explain it. He replied "I am not able to do so." Like a thunder clap Doctor Hoose said, "Class excused." Your speaker said, "Doctor, we have studied this carefully but cannot at present understand it. Will you be willing to give us some references that will throw some light upon the problem?" "Class excused," he thundered. We went out very much crest-fallen. One week later we returned, and as if nothing had happened the good Doctor said "Page—, line—, Knoles read." Knoles read; then the command, "Knoles, explain." The reply was the same as the week before. Rubbing his glasses he looked at your speaker saying, "You wanted to read a dozen books before you could read one." Then he sat back in his chair and for an hour and a half poured out the most wonderful explanation of the Kantian philosophy that it had ever been our privilege to hear.

Today we dedicate these beautiful halls and this magnificent seminar room to the honor of a man who, like

Socrates and the greatest teacher of them all, never wrote. Many, many times I go into my library and long for the privilege of pulling down a volume written by this great man, but it cannot be done. Is it such a loss, for whenever I find men and women who have come under the inspiration of James Harmon Hoose I find living epistles? He wrote not upon marble, parchment, or paper, but on the plastic minds of those who are even now multiplying his writings.

SPECIAL EXERCISES IN CONNECTION WITH THOMAS BLANCHARD STOWELL HALL OF EDUCATION

THE EFFECT OF CHANGING CONCEPTIONS OF GOVERNMENT ON EDUCATION

WILL C. WOOD.
State Superintendent of Public Instruction

MEN BORN of the Spirit welcome the dawn of each new day, because its span of working hours is filled with opportunities for purposeful activity and service. It is eminently fitting that man should emulate the blithe and happy skylark who sings in anticipation of what the new day may bring. No people are so successful as those who sing while they spin, for the strands and skeins of song become no small part of the warp and woof of the tapestry of life, giving it resistance against wear and tear and making it beautiful to look upon. It was Paul the Apostle who bade the Ephesians "be filled with the Spirit, speaking to yourselves in psalms and hymns and spiritual songs, singing and making melody in your heart to the Lord."

It is in such a spirit of song and thanksgiving that we are gathered here today to dedicate this hall to the great work of keeping alive the fires of the spirit. From a humble beginning this institution has grown to high estate because its workers sang and made melody in their hearts while they labored. Hope has been realized; faith has been rewarded; the unquenchable spirit has taken on new light. Today we are assembled to witness the housing of that spirit in a new temple, named in honor of one of its

elders and chief priests and dedicated to a larger usefulness. It is indeed a fitting recognition of the work of a devoted man, a scholar, broad in learning and human sympathy; a character without a blemish; a teacher in the image and spirit of the Great Teacher. Doctor Thomas B. Stowell, the first dean of the School of Education of the University of Southern California, has laid its foundations broad and deep, and strengthened them with the buttresses of faith and hope. As Superintendent of Public Instruction of the great commonwealth of California, I bring this tribute, and attest his usefulness to the state and his unselfish devotion to the cause of education. It is fitting that this building shall bear his name.

On such an occasion it is appropriate that we consider, in the light of present and prospective needs, the future of institutions dedicated to the great work of shaping and molding the ideals of education, and relating these ideals to the needs of the state. It was Alexander Pope who wrote in Augustan verse:

> "Tis education forms the common mind;
> Just as the twig is bent, the tree's inclined."

I take it that no one in this twentieth century will challenge the supreme importance of education in the life of a commonwealth. The German people, converted to the ideals of militarism and world domination within three generations, chiefly through education in the state schools; the French people, schooled in thrift and steeped in the ideals of resistance to Prussian attack in a highly centralized school system—both are striking examples of the part education plays in the life of a nation. The ideals of a nation are shaped in the schools of that nation. The shaping of ideals is done chiefly by the teachers employed by the state. And the teachers of America are trained, for the

most part, in teachers' colleges and schools of education. It is clear, then, that the training of teachers is of supreme importance in a commonwealth. The ideals of American life that are being interpreted in the teachers' colleges today are the ideals which, by these teachers, will be interpreted to the children of America during the next decade. They are the ideals which will dominate American life away out in the middle of the twentieth century, when these children have grown to full estate and responsibility. Schools of education and teachers' colleges, charged with the supreme responsibility of shaping the life of the American state, are institutions of primary importance which we can not afford to neglect.

It is not an easy task to analyze the ideals which should dominate the teacher-training institutions of America. The American people are a mixed people, analogous in some respects to a conglomerate rock. Now a conglomerate rock is composed of many smaller rocks and pebbles formerly independent but now more or less firmly cemented together. Each of these pebbles making up the conglomerate mass formerly had its own center of gravity. In the conglomerate mass, the pebbles have lost their hundred or thousand individual centers of gravity and a new center of gravity for the entire mass must be found. It is easy to find by inspection the center of gravity in a rock of uniform texture, but very difficult in a conglomerate mass because of the varying textures of the fragments composing the mass. Moreover, each accretion to the mass causes the old center of gravity to shift and makes necessary the establishment of a new one. Carrying out the analogy, accretions to the conglomerate mass of our population have been so many and of such varying mass and texture, that it is difficult to determine just where is the center of gravity in America today or where it will be tomorrow. The ideals of America, like the center of gravity in a con-

glomerate rock, are hard to define because of the changing mass and character of our population.

It is in their government, perhaps, that the common ideals of the American people find most direct expression. For that reason I have chosen to discuss some phases of our government and their bearing upon education. During the hundred and thirty-four years of our national history, the political theories that have dominated American life and government have not been static. On the contrary they have been shifting and variable, and on the whole progressive. At the very outset we discover two divergent theories struggling for supremacy—on the one hand, the theory of a strong national government which would gradually absorb many of the functions exercised by the states and smaller subdivisions, justifying such absorption by the doctrine of public welfare; and, on the other hand, the theory of a constitutionally restricted national government based upon the doctrine of state and local rights. The chief protagonist of the strong national government in Washington's cabinet was Alexander Hamilton; the chief protagonist of the opposing theory was Thomas Jefferson. Underneath the surface of the current of discussion of the nature of our national government there ran a stronger current. Hamilton and his followers were opposed to the application to American life of the extreme individualistic, or *laissez-faire,* doctrine. The great exponent of a strong national government believed in the extension of Federal power to the regulation of banks and other matters of general concern. Thomas Jefferson, on the other hand, being a disciple of Rousseau, preached the doctrine of individualism, summing up his attitude by declaring "that government is best which governs as little as possible." In justice to Jefferson, it must be said that when charged with official responsibility, he sometimes forgot his dictum.

During the first quarter of the nineteenth century the executive and legislative branches were dominated very largely by the ideals of Thomas Jefferson. The conditions of pioneer life made possible the application of the political theories of states' rights and individualism. However, the Supreme Court of the United States during this period was influenced largely by Chief Justice John Marshall, who, like Hamilton, was the apostle of a strong national government. It was he, who, by sweeping decisions, based upon splendid analyses and careful reasoning, extended the limits of Federal power. In the case of Marbury *vs.* Madison, he asserted the doctrine that the Federal Supreme Court could annul a law of Congress; in Fletcher *vs.* Peck he established the doctrine that the Federal Courts could annul an act of a state legislature; In McCulloch *vs.* Maryland he set forth the doctrine that the Federal government has all the powers implied in the act of its creation. It was this last decision, upholding the theory of implied powers, which has been invoked so many times subsequently to break down the doctrine of state and local rights and shatter the ideals of political individualism. Since Marshall's time the powers of the Federal government have greatly expanded; many governmental functions formerly limited to states and local jurisdictions have been centralized at Washington, and Federal regulation of commerce and industry, generally in the interest of the public welfare, has gone on apace. At the beginning of the twentieth century we face an anomalous situation. We find the political party which celebrates the birthday of Thomas Jefferson, its founder, responsible for more laws for the centralization of government at Washington and more laws providing for regulation of business and industry enacted during the administration of a single president, than were enacted during any preceding quar-

ter of a century. And we find the opposing party, which is reputed to have inherited the ideals of Alexander Hamilton, standing firmly, yet anomalously, upon the principle of less centralization of government at Washington, "less government in business," and less regulation of commerce and industry by the government. However the parties may divide on the questions of nationalism and centralization, the fact stands out that our national government is becoming daily more complex and its functions are multiplying. A democratic government can continue to exist only so long as it is generally understood. In consequence, the centralization of functions at Washington and the continued differentiation of functions make the problems of government more complex and, by doing so, lay a greater burden on the schools in training for citizenship.

Since the theory of *laissez-faire,* on the one hand, and the theory of extension of government, on the other hand, have dominated and still dominate the governmental activities and attitudes of America, these theories are worthy of some analysis without reference to the political parties espousing them. The theory of *laissez-faire* found its strongest expression in Europe at about the time our government was founded. Before the eighteenth century a characteristic feature of the industrial and commercial development of England and other European countries had been careful regulation and control of trade and industry, first by the guilds and later by the government. This regulation had been carried to extreme lengths. State interference extended to the fixing of prices of food and apparel; prohibiting the wearing of certain kinds of clothing, restricting the manufacture of certain articles by apprentices, regulating the wages of labor, forbidding the exportation of certain goods, forbidding the use of certain machinery in manufacturing, prescribing where factories should be located, discouraging certain industries by taxa-

tion, encouraging other industries by bounties, prohibiting combinations among workers, restricting certain trades to guild members, prescribing the number of meals one should eat, the size of buttonholes, the length of shoes and the cut of one's dress and even naming the kind of material in which the dead should be buried. According to John Stuart Mill, legions of inspectors, measurers, and commissioners saw that the conditions prescribed by the state were observed. A history of such regulation in England during the seventeenth and eighteenth centuries reads very much like recent indictments of national and state governments in America. Buckle, in his "History of Civilization," says the legislators of the time "went blundering along in the old track, believing that no commerce could flourish without their interference and hampering that commerce by repeated and harassing regulations."

In the eighteenth century there was a reaction from this system of control and regulation, which found expression in the doctrine of *laissez-faire*. Supporters of this individualistic or "let alone" theory believe that the sphere of state activity "should be restricted to the narrowest possible limits consistent with the maintenance of peace, order and security." The state is necessary, they say, to keep order, enforce contracts, protect life and property and repel attacks from without. That the doctrine of *laissez-faire* persists in pristine form even in the twentieth century may be confirmed by reading an article by Samuel Spring in the *Atlantic Monthly* of June, 1921, in which the writer holds that taxation, that is, the raising of money for the support of government, is "at best an interference with economic tendencies, a poison administered in small doses." The individualist holds that the state exists to restrain crime and breaches of faith, not to direct and promote the general welfare. "Individualists," says Huxley, "condemn all sanitary legislation, all attempts on the part

of the state to prevent adulteration or to regulate injurious trades; all legislative interference with anything that bears directly or indirectly on commerce, such as shipping, harbors, railways, cab fares, and the carriage of letters; and all attempts to promote the spread of knowledge by the establishment of teaching bodies, examining (and licensing) bodies, libraries and museums; all endeavors to advance art by the establishment of schools of design, or picture-galleries, or by spending money upon an architectural public building where a brick box would answer the purpose. According to their views, not a shilling of public money must be bestowed upon a public park or pleasure ground; not a sixpence upon the relief of starvation or the care of disease."

A twentieth century American may regard the individualistic theory as absurd. However, he should be reminded that it has been indorsed by such men as Adam Smith, Ricardo, Malthus, John Stuart Mill, De Tocqueville, Taine, Kant, Fichte and Herbert Spencer. It is held by many Americans today and is manifested most frequently at the time that taxes fall due. Herbert Spencer, in his "Social Statics," maintains that happiness does not come through state action but by being left alone; that the sphere of government should be negatively regulative; that the state should seek to redress evils, not try to make men happier by helping them to do what they can do as well, or better, by themselves. Concerning education, Spencer held that "taking away a man's property to educate his own or other peoples' children is not needful for the maintenance of his rights and hence is wrong." Humboldt inveighs against "over-government" not only because it restricts freedom but also because it "superinduces national uniformity" by its tendency to reduce society to a dead level. The individualists stand for free competition and for the free play of the doctrine of sur-

vival of the fittest. Men will be stronger and better, they say, if they are left to develop and to work without interference. Unrestricted competition, they hold, will produce not only a stronger, fitter race, but also more and better goods, thus solving at one stroke our economic and social problems. It must be remarked, in passing, that this argument for the free play of brute forces is strikingly similar to the justification of the war for world dominion put forth by German philosophers and statesmen in 1914.

Opposed to the extreme individualistic theory which we have discussed, is the extreme socialistic theory. The holders of this theory, far from regarding government as an evil, look upon it as a positive good and hold that its activities should include the promotion of the common economic, moral and intellectual interests of the people. The extreme socialists advocate collective ownership and management of all industries, including land and capital and the instruments of production and transportation. They would substitute state management for private management. They decry the evils of competition and the concentration of wealth in the hands of a few. They maintain that much of the materialism, dishonesty and lowering of standards of character that mark present-day civilization is due to the competitive principle. In support of their doctrine, they cite the success of certain experiments in government ownership and operation of public utilities.

The American policy has been to steer a middle course between the two extremes, verging toward one or the other according to the exigencies of the time. The individualistic idea borders one bank of the stream of American thought and practice and the extreme socialistic idea borders the other bank. To approach either bank too closely is to run the risk of being stranded on a sand bar. For a hundred and thirty-four years the ship of state has held to deep water in the main current of the stream. The

American people recognize the dangers of extreme individualism, in injustice to the individuals, communities and whole regions. The free play of competition resulted in grinding poverty, long hours for workers, child and woman labor, and in a high death-rate among workers. Individualism carried to the extreme robbed youth of education and opportunity and threatened the destruction of democracy. If unmitigated competition holds sway in industry, why not in political life? If only the strongest are to survive in industry under the merciless working of unrestricted competition, why should not the strongest survive in political affairs? When the strongest rule in the state by overcoming, coercing and trampling, upon their fellows, we shall have a despotism or an oligarchy, not a democracy. The theory of *laissez-faire* and the theory of democracy are in no slight degree opposed. The principle of survival of the fittest undoubtedly applies in unmitigated form to the brute and plant world. But man, unlike the brute, is endowed with a soul which would be maimed and strangled if it were to win a brute triumph by the cramping or death of other souls. If man is to keep his soul, he cannot maim or cramp or kill the souls of fellow men or the souls of women and children. We must have regulation of industry, sanitation, control of disease, education, recreation, poor relief, water systems, public hospitals and public improvements as well as police forces, fire departments and courts of justice, if civilization is to survive. It is idle to maintain that these matters should be left to private initiative. It is equally idle to deny that individuals acting together, in many matters, can secure more good for all by so acting, than they can by acting alone.

In rejecting the extreme of individualism, we need not embrace the extreme of socialism. Like individualism, it has its points of weakness and its positive dangers. The mainspring of human action has been, and I believe ever

will be, private ownership. I have seen too much neglect of public property and too much tolerance of the neglect of public business, to have faith in the theory of collectivism or communism. I have had too much experience in the education and training of human beings to believe that human nature can be changed by legislative fiat or economic revolution. The path of human kind upward is a long and arduous path; there are few short-cuts and they are indeed very short. We learned during the war that sudden prosperity is fraught with possibilities of evil; that human beings really value only that which they earn or deserve. If all the wealth of the world were confiscated and redistributed, the greatest injury would be done, not to the man whose property was taken, but to the man who received wealth he did not earn or deserve. The wicked carnival of senseless spending, superinduced by profiteering and unearned wages during the war, bears witness to foolishness of reaping where one has not sown; of getting what one has not earned or deserved. It is an injury to the individual who seemingly profits by it, and it is an injury to society.

What theory then shall we hold as defining the purpose of the modern American state? I am convinced that the answer is neither individualism nor socialism. Professor Ritchie, in his "Principles of State Interference," holds that the purpose of the state is the realization of the best life by the individual. Laboulaye, the French professor of political science, says, the "role of the state is to assure to the individual his entire development—the full enjoyment of his physical, religious, intellectual, and moral powers; to remove obstacles and restraints; and to promote the general progress by multiplying the means of education and putting it at the door of the most ignorant and poorest." Dr. James W. Garner offers as a statement of the modern American view the following: "The original, pri-

mary and immediate end of the state is the maintenance of peace, order, security and justice among the individuals who compose it. Secondly, the state must look beyond the needs of the individual as such to the larger needs of society—the welfare of the group. It must care for the common welfare and promote the national progress by doing for society the things which the common interests require but which cannot be done at all or done efficiently by individuals acting singly or through association."

Accepting Doctor Garner's statement of purpose of the state as representing fairly the American view, how does education enter into the scheme? At the risk of appearing platitudinous, I maintain that education is one of the chief functions of the state because, by broadening the mind, by training and disciplining the individual, education is a primary and indispensable means for realizing the primary end of the state, namely, "the maintenance of peace, order, security and justice among individuals." Peace and order depend upon a common acceptance of the principles of right and justice— and education makes for such common acceptance. Security of life and property depends upon a recognition of the difference between liberty and licence— and education seeks to define that difference. But education goes farther—it enables the state to promote the common welfare by raising the level of intelligence and character among citizens, and by training experts who may do for the common welfare what such welfare demands.

In recent years we have witnessed many experiments in national and local government. The powers and functions of the national government have expanded, but in many instances these functions have been badly performed. Vast sums have been wasted because of the incompetence of the public servants. The responsibility rests chiefly upon

the public, which has been so fearful of experts that it has tolerated politicians in places where expert services are needed. The American people must be educated to the point where they will demand expert rather than political service in places of responsibility. They must be trained to be critical of the results of public service rather than the details thereof. They must be educated to this point where they will pay competent state employees the wages of competency; where they will hold responsible the official who clings to the policy of the out-worn spoils system. The government at Washington may be recognized; the pawns may be shifted in the game of politics; but efficiency and extravagance will continue in spite of it unless there is more expertness and business in government. It is to the schools that we must look for the training in citizenship which will demand and supply the type of men needed to make American government successful, efficient and economical. Only thus can the government be made to realize the secondary purpose of the state, namely, promotion of the general welfare.

With the expansion of our national government, the growth of population, the development of industry, and the tendency to congestion in large centers, there has come a demand for regulation along many lines including industry, transportation, housing, and sanitation. Unregulated, a railroad may kill a town which has offended it, by the simple method of extorting high rates or moving its tracks. Unregulated, an industry may kill and maim many of its laborers by neglected safety appliances, thus throwing upon the state the burden of caring for crippled men or for bereft widows and children. Unregulated, a filthy family may pollute the water supply of a city and spread disease and death among thousands. The extreme, individualistic theory of "let alone" may work on the plains of Mesopotamia or Timbuctoo, where the popula-

tion is scattered, but it will not work in New York or Chicago or Los Angeles, where the population is congested. During recent years, the policy of state regulation has expanded rapidly. Industrial accident and workingmen's compensation laws, laws regulating automobiles and traffic, laws regulating transportation and public utilities, laws regulating traffic in drugs, laws regulating moving pictures, laws regulating building and housing, laws regulating employment, especially the employment of women and children in industry, laws regulating weights and measures, and the issuance of stocks and bonds, have been put on the statute books. Most of these laws are the outgrowth of congestion in cities and changes in industry. They have been deemed necessary for the public welfare. Already there is a tendency to react against regulation in many matters, not so much because regulation is deemed unnecessary as because much of the regulation has been lacking in intelligence. If we are to have regulation, it must be intelligent and based upon facts, not upon theories or political expediency. This means that the public service must be manned by trained people rather than by men and women who must be taken care of as rewards for political service. The time has come when public service should be made a career justifying education and training, which the school must supply. Moreover, regulation, to be effective, must be backed by civic and public opinion based upon general recognition of the needs and means of regulation. If our young people are properly educated in citizenship, the violations of necessary regulations will tend to become fewer. The growth of the movement to expand governmental powers in the promotion of the public welfare, throws an added burden on the schools in the training for citizenship. If necessary regulation fails, it will be due to unintelligent administration and

lack of the backing of intelligent public opinion. And if regulation fails, we shall probably have to choose between a reaction to individualism, with its brute appeal to the doctrines of survival of the fittest, on the one hand, or socialism, with its dangers of mediocrity, dead-level uniformity and lack of spur to effort, on the other hand. The schools must rise to the responsibility of maintaining the American ideal, which is neither individualistic nor socialistic, but which embraces the best in both theories of political action.

In local government, also, we face a very real situation. Great cities have built water systems and aqueducts, bought parks and playgrounds, built up street departments and fire departments and constructed sewer systems. Some cities have embarked upon the policy of owning and operating such public utilities as light plants, gas plants, and street railways. Municipal governmental functions are expanding daily, but municipal government has not kept pace with the expansion. We adopt new charters and change ordinances in the hope of relief, but generally we do not find it. The ward system of electing a city council gives way to election at large. The Mayor and council give way to the commission form of government. The commission gives way to the city manager—all in the hope that a change of machinery will give results. But the change has not worked wonders—in most instances the change has succeeded only so long as the enlightened civic interest which forced the change persists in the government itself. American cities will never be permanently redeemed from bondage to master-politicians until intelligent public opinion becomes permanently interested in municipal affairs. In municipal affairs, as well as in national and state affairs, there is need for expert administration, responsible, not to master-politician, but to intelligent public opinion constantly and vigilantly functioning.

To develop this expert public service and to train the people to habits of participation in government, the schools must bend their energies. It is a mighty task which must be attacked by mighty spirits, but the task is not insurmountable.

The problems of America in the twentieth century are indeed great and towering. We hear the call to world trade and world service. Such a call means further expansion of governmental activities. As these activities expand and make demands upon public agencies, the call will come for greater simplicity in government at home. Better organization and co-ordination of public agencies will help, but it will not be sufficient. As functions expand and the burden of performing them becomes greater, the demand for simplicity in government will increase. The individualists will argue for a return to the principles of *laissez-faire;* the socialist will argue for reorganization on the basis of socialism, which he holds is a simple program. The confused citizen may yield to one or the other in the midst of confusion. If he yield to extreme individualism he will yield to brutal competition in which, in the last analysis, children will compete against fathers, wives against husbands, as well as men against men, in the pitiless struggle for survival. He will also yield democracy and all her precious fruits. If he yield to extreme socialism, he will yield to mediocrity, to the herd without a bellwether, to a system lacking the spur to genuine progress. Progress does not lie in either direction; it is not to be found on either bank of the stream but straight ahead. The future of democracy, the future of America, all are enfolded with the future of education. And education in America must awake to its high responsibilities, which are no less than the preservation of the inalienable rights of man, of the institutions of our fathers and of government of the people, by the people, and for the people.

TO DEAN THOMAS BLANCHARD STOWELL

EMORY S. BOGARDUS
University of Southern California.

Dean Thomas Blanchard Stowell honors us today by his presence, and we would honor him in the dedication of Stowell Hall. He may be said to have entered upon his scholastic career at the age of nine years when in a private school in the city of Buffalo he began the study of the classics. At the age of nineteen he was graduated from Genesee College, now Syracuse University, having been honored in his junior year with the Greek oration and in his senior year with the Latin oration. While still in his teens he was elected to the principalship of the Addison Academy in New York. A year later he assumed charge of the Academic Department of the Union School at Morrisville, New York, and in the following year he was appointed professor of mathematics in Genesee Wesleyan Seminary.

While still at the beginning of his twenties he became principal of the Morris High School, Leavenworth, Kansas, where he had the supervision of 1000 pupils, with sixteen associate teachers. He soon received another promotion—to the chair of natural science in the State Normal School at Cortland, New York, where he crowned twenty years of service with remarkable success.

He then became principal of the State Normal and Training School, Potsdam, New York, where he rounded out another twenty years of still greater educational achievements. He then came to Southern California. As dean of the School of Education and dean of the Graduate School, Dr. Stowell contributed ten more busy years of his

life to the cause of education. The brief review discloses in part the scope and volume of the prodigious educational labors with which Dr. Stowell spanned more than half a century of successful endeavors.

From his *alma mater* Dr. Stowell received the degree of Master of Arts and also the degree of Doctor of Philosophy. St. Lawrence University honored itself by conferring upon him in 1909 the degree of Doctor of Laws. At the Anderson School of Natural History, Dr. Stowell studied under the direction of the illustrious Agassiz. His summer vacations were utilized in the field, collecting materials for scientific investigation. His excellent training was supplemented by travels at home and abroad.

The son of accomplished parents, he added culture unto culture by his marriage with the daughter of Reverend and Mrs. George H. Blakeslee. It is clear that the marvelous success which has been attained by Dr. Stowell is due in no small degree to the support which he has steadfastly received from his active, inspiring, ever-youthful, accomplished wife—Mary Blakeslee Stowell.

Dr. Stowell's extraordinary versatility is demonstrated by the fact that he achieved prominence as a teacher of mathematics, of chemistry, of biology, of neurology, of psychology, and of education. In all these fields he attained prominence not only as a teacher, but also as an investigator, and moreover, as an executive.

As a teacher, Dr. Stowell's personality is an outstanding force. He inspired in his pupils, young and old, not only an abiding interest in facts, details, principles, but also a deep-seated love of nature, of little children, of men, and of God.

As an investigator, he held persistently to the inductive, laboratory method of inquiry. He was equally insistent that his students in science proceed from and maintain a sound and constructive philosophy of life.

The vast swing of his intellect is seen in the number and variety of his publications, which are found in the *Proceedings of the American Philosophical Society,* of *The American Association for the Advancement of Science,* of *The American Microscopical Society,* of *The Society of American Anatomists,* of *The National Educational Association,* in *The Journal of Comparative Neurology,* in *The Personalist,*—not to mention many other articles and books of which he is the author.

In my acquaintance with Dr. Stowell during the past ten years I have marvelled repeatedly at his ability to carry responsibility and to achieve results in several important directions simultaneously. At times it would seem that he was doing the work of three full-sized men, and yet he was anxious and willing to do more. His never-failing courtesy should not go unmentioned. Whether busy at his desk, or in the midst of discussing knotty administrative problems, or at the end of a long and tiresome day, his fine sensibilities would respond promptly, revealing the highly trained heart of a gentleman and the finest courtesy of a king's court.

One of his former students, the head of the Department of Compulsory Education and Child Welfare of the Los Angeles Public Schools, Dr. E. J. Lickley, says: "In the years of my delightful association with Dr. Stowell I have always thought of him as the man with the understanding heart." Mr. Arthur C. Brown, principal of the McKinley Intermediate School of Los Angeles, says: "Dr. Stowell was ready at all times to help us over the difficult places. I cannot adequately express in words my appreciation for this great scholar and teacher, who had a big, understanding heart and who proved himself at all times to be a loyal, sympathetic friend." Note the significance of these words from Mr. W. W. Tritt, principal of the Thirtieth Street Junior High school of Los Angeles: "Dr Stowell, scholar,

teacher, friend, gentleman, is endeared to all who know him. His service to the teaching profession for more than a decade in this community is without equal."

In concluding this tribute to our distinguished colleague I offer the following statement from Dr. Rockwell D. Hunt, dean of the Graduate School of Arts and Sciences and director of the College of Commerce and Business Administration, as being altogether fitting: "During the happy years of our active association, Thomas B. Stowell was to me more than a colleague,—he was counselor and friend. There was always something heartening about his generous spirit and urbane manner. His interests were never confined within departmental barriers,—they were as broad as life. An intense worker in the field of exact scholarship, he yet found time for the aesthetic and the spiritual: whatever he did was done with a zest that was fairly contagious. I think of my honored colleague as a life-sized man of wide learning, planetary experience, ripe judgment, thorough-going loyalty,—a rare ornament to Christian civilization and a friend of man."

A PERSONAL APPRECIATION OF DOCTOR STOWELL

DEAN EZRA A. HEALY.
Maclay College of Theology

Thomas Blanchard Stowell is an American gentleman of the finest type. I say of the finest type for the reason that *the* American type has not yet been stereotyped.

Our records exhibit many kinds of Americans. We have the semi-aristocratic English type of which the illustrious example is seen in the Father of his Country. A variety, now nearly extinct, may be represented by the frugal, philosophic Benjamin Franklin. Let James Russell Lowell stand for the American of fine aesthetic sensibility and literary culture, and his own "Biglow Papers" forever embalm the traditional Yankee. The immortal Lincoln, cloud-piercing seer and saviour of his country, shall stand alone, while we come back to earth in contemplation of the sturdy and militant type of reformer and statesman of which the finest exhibit is found in the Knickerbocker American world citizen, Theodore Roosevelt.

If you will carefully hold the difference between similarity and identity I unhesitatingly choose the George Washington class for the man in whose honor we are today assembled.

Courtesy unfailing, dignity never sacrificed, both controlled by a true democratic brotherliness, mark the type. "Three generations," said the Autocrat," are required to make a gentleman." I have been busy on Doctor Stowell's backward track and I find about three centuries conspiring to produce our honored guest.

A peculiar graciousness in speech and manner, perhaps the first thing to impress an acquaintance, is found by most intimate associates to have its root in a kindliness, inborn and inbred, which is the spirit of the man.

Think for a moment of Doctor Stowell's record of attainment and achievement, so graphically given us just now by Doctor Bogardus, and you are prepared to associate the qualities I have tried to describe with the virilities of the staunchest manhood. Sophistry and pretense have never made headway in Doctor Stowell's class-rooms. I have seen the tyro in philosophy, or, perhaps, in the science of education, caught in exploiting some false theory, so smilingly and yet so sharply corrected that I have thought of the scimitar of the Saracen so polished and so keen that its victim did not know he had been struck until, nodding assent, his head fell off!

The modesty of Doctor Stowell, which though he is here keeps him out of sight while we talk about him, will not, I trust, be too seriously invaded if we dwell yet a moment on some phases of his work.

As a teacher of teachers it has been his privilege to multiply a thousand fold the influence of one good man. Go back in thought to Cortland and Potsdam.

Toward the latter city I turn with affectionate interest, for in its own pioneer days it was the birth-place of my father. Governor Nathan Miller, of the Empire State, was a student in Cortland. If you can remember the old village school and how the arithmetic tormented you, from "long division" to "permutations," you are prepared to give proper credit to the eminent Professor David Eugene Smith, another of these favored pupils.

Over our country, East and West, during the last ten years in the High Schools of California, are found men and women who cherish as an inspiration the memory of their years with this beloved teacher.

No lover is more constant, no patriot more loyal than he in whose honor we dedicate today the "Hall of Education." When more than fifty-one years ago Thomas B. Stowell and the gifted and beautiful Mary C. Blakeslee pledged their faith, each to the other, until death should part them, they established and have kept holy through all the years, America's most sacred treasure, a Christian home.

When I add that Doctor Stowell is a Republican of the Lincolnian-Rooseveltian type, and that his religion is evangelical Christianity with the Methodist label, we may surely say that in Thomas Blanchard Stowell we see the full stature of a man.

PART SECOND
EDUCATIONAL CONFERENCES

PHILOSOPHY CONFERENCE

VALUES AS DOGMA IN PHILOSOPHY

WILBUR HARRY LONG
University of Southern California.

The average man lives, completes the law of his being, and never very seriously criticises what he does or why he does it. Philosophy and speculation, criticism and rationality, are the avocation of the few, the vocation of the fewer. Yet speculation and life go hand in hand; and it is too true that, although thought can give much to life, it can also throw sand in the machinery of civilization and do much damage to human existence itself. Skepticism often confronts the practical man of the world. In such times the living man may do one of two things, himself unable to cope with the arguments of professional naturalism; he may be beguiled into playing the game with the rules of the professional rationalist, or he may close his ears to the siren call of "reason," and take his stand firmly upon the instincts, the intuitions, the necessary demands of his own spirit: in other words, he may all the more deeply ground himself in practical life. If he take the former course, he will probably lose, as most of us do when we play the game of a novice against that of a professional, with the rules which he lays down. If our common man take the latter course, he is safe.

Somehow, fortunately and significantly, life goes on in spite of the bungling of thought, in spite of the tampering into its machinery by skeptic fingers. Life is healthy, life

is insistent, and, happily, life knows better than man. To this truth Bliss Carman testifies when he exhorts:

> "Live on, love on: Let reason swerve;
> But instinct knows her own great love."

Life is both insistent and persistent; somehow it takes its own way down the ages. Not like a forsaken child is man cast upon the shore of being, and abandoned by alien hands to the shifting fate of his own blundering struggle—a struggle both pathetically impossible and blind. Man has not been left to his own hopeless wanderings toward a destiny he may not hope to attain. Beneath life are beneficent arms, guiding man quietly but surely toward a goal which some of us surmise, but which none may know positively. It is not without deep significance that we hope on regardless of what men say or "prove"; we pray and believe, regardless of "scientific" devil-laughter; we catch the mystic gleam of dawn, we hear the silent music of life, we fling yearning and grasping fingers out into the invisible, and know the touch of infinite peace and satisfaction and quiet and love.

After all, something is wrong when so much philosophy of the day, as of all days, contradicts the deeper experiences and demands of the spirit and of human life. If man, in repudiating rational skepticism, moves steadily toward the goal of self-realization at which cynics scoff and to which they fail to attain, what is the trouble, and where lies the solution? Is man justified in holding to life regardless of shifting argument and theory? The great poets and prophets down the ages have so affirmed. Is philosophy prior to life, and is its potential skepticism toward the imperative demands of human life, rational? If not, perhaps speculation misunderstands itself. There is a health in life that, however it may be perverted or checked, will

not down. The great values of life, expressing, as one must believe they do, the law and the will of the energy beneath life, may be crushed down by the perversity, the stupidity, the narrowness of vision of man, but sooner or later each reappears again in human life and human institutions. The truths of life remain,—the hope, the wonder, the joy, the worship, the love, the loyalty to goodness, the beauty, the light. And beneath changing intellectual *credos* is that eternal fiber of truth which is the permanent core of human life and destiny. Such is the meaning of John Neihardt's observation that

> "Always the Fact shall perish
> And only the Truth survives."

That life or man, however we may define or understand them, is sovereign over its own parts is a universal conviction of mankind at large, save for the occasional dissenting voice of the specialist, the professional rationalist. This common note is sounded, oddly enough, by such a strange and unsynchronous choir of voices as French voluntarism, continental irrationalism, Russian nihilism, decadent individualism and aestheticism, pragmatism (humanism and instrumentalism), and personalism. Among one of these movements, it would seem, there should arise a philosophical justification and investigation of the significant truth of life. As a matter of fact, it is to the latter, personalism, with its wider vision of values—its faith in rationality, its individualism, its humanism, its love of life, its moral vision, its spiritual insight and aspiration— that the task falls of giving rational form to this common tenacious belief. And such is the field of the new philosophy of values, which must arise as a synthesis of philosophy with psychology and sociology.

Many fundamental problems of philosophy must await

for their solution the rise of a full-fledged philosophy of values. In fact, philosophy can never understand itself, its ground, its authority, and its relation to life and man, until such a fundamental contribution has been given it. Nor can it hope sooner to solve the problems relating to the meaning of concrete thought, concrete experience, value-judgment, common sense, and intuition. And, for example, of what use is it to talk glibly of proof, truth, knowledge, reality, and to proceed dogmatically toward the search for truth, until we learn why man thinks, why he philosophizes, why he disagrees with his neighbor, why men think differently in different ages, and what authority philosophy can show for its axioms and dogmas. Such questions can only be answered by a psychology of philosophy and a philosophy of axioms or dogma. From these we learn that the only authority in philosophy is an indomitable impulse within man to have faith in his conviction regarding powers of knowing an external world. These studies show that the fundamental passion and dogmas of philosophy arise out of the good old earthy stalk and root of human desire, and take their place as one value among those fundamental values of life which reveal themselves in personality, society, and civilization. Such fundamental or imperative values of life are dogmas of human existence which will never be silenced, for they express that will and law of the energy beneath human life which is pushing man up to self-realization in personality and civilization. The philosophy of values, if its findings prove true, will blot out all specialization theories, and all skepticisms that contradict total life. To such a philosophy the present discussion attempts to be a suggestion.

The time is past when dogmatic rationalism in the form of materialism, or skepticism, can destroy the high needs and aspirations of man, or set itself against life with a pre-

sumptive assertion of Final Truth with a flaunting sneer in the face of humanity, "If the world like it not, so much the worse for them." Smart dogmatism in philosophy still captivates the unwary, yet when the rubber balloon is pricked by criticism, all that remains is a piece of husk which proves to be an accepted axiom. The divine right of science or of rationalism, the authority of "Reason," the sneer at "emotion" and "religion"—such lose all of their convincing "punch" when traced to their sources. Salome can no longer dance in the presence of King Thought with the head of John on the silver platter.

All philosophies which repudiate life are much like the famous luckless courtier of whom Carlyle tells, who enveloped himself in enormous habiliments artifically swollen-out on the broader parts of the body by introduction of bran, "who having seated himself on a chair with some projecting nail on it, and therefrom rising, to pay his devoir on the entrance of Majesty, instantaneously emitted several pecks of dry wheat-dust: and stood there diminished to a spindle, his galoons and slashes dangling sorrowful and flabby round him." Divine-right rationalism, dogmatic realism, and other sundry philosophic impositions and quackeries which pose as transcendent verities not to be handled, prove to diminish into a spindling assumption, once their exterior gets caught on the nail of criticism. Such arbitrary dogmatists "have dreamt for ages of *a priori* philosophies without presumptions or assumptions," writes Schiller;[1] "whereby being might be conjured out of Nothing and the sage might penetrate the secret of creative power. But no obscurity of verbiage has in the end succeeded in concealing the utter failure of such preposterous attempts. The *a priori* philosophies have all been found out." Ward hits the nail on the head when he remarks:[2] "This notion of being absolutely thorough-go-

[1] *Humanism*, XVIII. [2] *Realm of Ends*, 225, 26.

ing, of building up a metaphysic without presuppositions, one that shall start from nothing and explain all, is, I repeat, futile. Such a metaphysic has its own assumption, and that an absurd one, namely, that nothing is the logical *prius* of something." Such remarks apply equally well to metaphysics and logic. Philosophy which drops from another planet, and is therefore from some supra-human sphere and not to be traced to its source in the good root of persistent human desire and need, is the silly supposition of pure stupidity.

When one inquires into the authority of metaphysical speculation, or into the authority of reason, pure or otherwise, or into the authority of scientific "realism," he receives the same reply that it is an "instinct" of man. "Metaphysics," remarks the oft-quoted Bradley,[3] is the finding of bad reasons for what we believe upon instinct, but to find these reasons is no less an instinct." He elsewhere writes of man's "instinctive longing to reflect," and can justify thought only because it is a "want of your nature, a refuge for the man who burns to think consistently." (*Ibid.* p. 5) Even talk about a knowable cosmos and about an external world at all, is an assumption. "We simply *must* assume that the world is an intelligible world, if we are to live in it," writes Schiller.[4] As a matter of fact, we do assume it, all except a few who bury their dissent in the seclusion of the madhouse. Is the assumption confirmed? Yes, in the only way in which such fundamental assumptions ever are confirmed: the further we trust it the more we know, the more confident in it we grow. The assumption of a moral cosmos is made and confirmed in the same way."

In turning to the demand for thought, the presumptive demand for a thought valid for reality, for a thought which shall be totally rational and consistent, for a thought

[3] *Appearance and Reality*, XIV. [4] *Humanism*, 262.

amenable to formal logic, one may well ask what authority logic can show for its pretensions. One may be shocked to find that all the dogmas or axioms of logic are postulates. Schiller is right[5] when he affirms, as a representative of that school which is pointing out the animistic nature of all thought, that logical causality, identity, and teleology, for example, arise from the experience of these qualities in self. The only proof of logical postulates, as Aristotle first declared,[6] is that of subjective conviction. The ultimate logical postulate, asserts Boyce Gibson,[7] "is the postulate of the radical intelligibility of experience. We have only to add that this postulate is not optional. We cannot think at all without making it. "But no one is compelled to think, save for the internal compulsion of his own will. Logic is a great faith, "an evidence of faith that truth is consistent and whole." Yet nobody has ever shown that reality *can* be consistent and whole. Discrepancies and antinomies and contradictions lie scattered about in every direction in the field of philosophy, and the philosophy of two-and-a-half millenniums has not removed them. That the possibility of ultimate truth is not self-evident nor beyond dispute is well known by those who are familiar with the history of philosophy. It is a sufficient demonstration of this fact to point to the Socratic and Kantian skepticism, Comtean positivism, modern irrationalism, nihilism, and aestheticism, and the whole pragmatic movement.

Logic is a great system of dogmas. The whole system is based upon the *summum genus, infima species,* proper name, and the concrete individual, yet in each of these cases we land in the undefinable. Actual, concrete reality, it appears, then, cannot be defined; and logic, the pretensive absolute science of human thought, rests, like the

[5]See his monographs "Axioms as Postulates" in *Personal Idealism.*

[6]*Ueberweg, History of Philosophy,* 1, 155.

[7]*Problem of Logic,* 78.

ancient world, on an elephant and a tortoise. Such concepts as "I," "Now," "Here," etc., admits Boyce Gibson,[8] "belong, as perhaps all concepts ultimately do, whether directly or indirectly, to the tree of self-knowledge which is rooted in immediate experience. For this reason it is impossible without a logical circle to define adequately in language what it is we refer to when we say 'now' or 'I'. This is impossible because we can only express in language the relatively complex cognition of which immediate apprehension is an element. What is immediately apprehended cannot be so detached as to become by itself a distinct object of knowledge. It is not nameable except as being an element of a relatively complex object. Thus, if I am right, when the application of words to particular existents is directly determined by immediate experience, it ought to be impossible to explain what is meant without a vicious circle. The only escape that I can discover lies in frankly admitting that there is a direct apprehension of particular existence as it is actually existing."

Even the recognition of self and the assumption of self-direction is an adventure of will. Self-consciousness is a value—something not to be proved, but to be grasped by experiencing it. "The immediacy of self-consciousness" writes Miss Calkins,[9] "is the starting-point of all philosohpy, the guarantee of all truth. The meaning of 'immediate,' which is unreasoned, and consequently not demanding proof." Nor are we able to demonstrate theoretically the existence of other personalities. In connection with a desperate but futile search to find theoretical proof for the existence of other personal beings, Bertrand Russell comments: "It must be conceded that the argument in favor of the existence of other people's minds cannot be conclusive."[10] Yet the existence of persons is one of the three

[8] *The Problem of Logic*, c7. [9] *Persistent Problems of Philosophy*, 409.
[10] *The Problems of Philosophy*, 93ff.

or four supreme dogmas and axioms of life, and one of the most (intuitively) certain. If such a man as Gorgias states that there is nothing, we can disagree with his nihilism, but all that can be done with the gentleman is to lock him up for safe keeping.

In life, chronic pessimism is generally the folly of sick cynics and dyspeptic sensualists. Yet, as Lotze declares, pessimism cannot be theoretically refuted.[11] Likewise Schiller writes:[12] "Pessimism should be taken in a far wider and more fundamental sense than is commonly assigned to it, and—when this is done—it forms an attitude towards the ultimate questions of philosophy which is not susceptible of being resolved into any other and cannot be refuted, but only accepted or rejected. It forms one of those ultimate alternatives the choice between which rests essentially upon an act of will."

Science itself is based upon the postulate or dogma of a reality external to us which is amenable to classification, meaning, ordered thought, and to permanent law. It is for this reason that science jumps from a given number of cases to a generalization, and forms a rational *schema* which shall be universally valid in nature. But in order to do this it is forced to abandon a theory of probability for a faith in natural necessity. The first truths in science are undemonstrable definitions.[13] In mathematics all is axiom. In the first law of exponents we go back to empirical counting. And, for example, there is no proof for the community of laws, which is assumed in algebra. Nor can we even affirm that simple mathematics is a necessary category of all reality, for it is perfectly easy to con-

[11] *Microcosmus*, II, 716ff.

[12] *Humanism*, 157.

[13] Schiller's comparison of science and religion is worthy of note, *Humanism*, XV: "The identity of method in Science and Religion is far more fundamental than their difference. Both rest on experience and aim at its interpretation: both proceed by postulation; and both require their anticipations to be verified. The difference lies only in the mode and extent of their verification."

ceive of an order in which some synthetic law would always make 2 plus 2 to become 5 or 7, just as in our own sphere hydrogen and oxygen lose their properties and become another phenomenon distinct from either and both.

Everywhere, then, we find life and all of its activities based upon dogma and axiom, that is, upon values which are not amenable to intellectual proof, but arise out of the demands of life itself and are dogmatically accepted by life. Dogma in thought, dogma in science, dogma in religion, dogma in ethics, dogma in human existence—dogmas are everywhere; some justified by intuition and universality, others merely the product of personal whim and lack of balance. "To assert anything dogmatically is to pretend that criticism of the assertion has no standing ground, and is therefore to attempt to hide any possible weakness there may be in it," states Sidgwick;[14] yet the criticism itself is a dogmatic demand. Thus, Bradley's sonorous manifesto that "There is nothing [in experience] which is sacred. Metaphysics can respect no element of experience except on compulsion. It can reverence nothing but what by criticism and denial the more unmistakably asserts itself,"[15] should be revised in the light of a philosophy of dogma. High-handed sentences such as the above usually hide with a superior and innocent air of fact the truth that they themselves are also children of dogmas. Bradley's contention about metaphysics includes a whole host of dogmas, the most startling of which is his statement of the supremacy of "rigor and vigor method" in speculation.

Take any presumptuous and high-handed proclamation, and you will find it full of hidden dogmas. For example, note the two following quotations from Bertrand Russell and De Witt Parker:

[14] *Application of Logic*, 202.

[15] *Appearance and Reality*, 207.

"A truly scientific philosophy will be more humble, more piecemeal, more arduous, offering less glitter of outward mirage to flatter fallacious hopes, but more indifference to fate, and more capable of accepting the world without tyrannous imposition of our human and temporary demands." [As though every demand of philosophy mentioned here were not a 'human and temporary' demand!!][16]

"Ideally the speculative philosopher has no concern with the specifically human interests. His is an effort at complete dispassionateness. [except several peculiar passions of his own, including the passion to know reality, the belief that he can know it, the assumption that it can be found by dissociating himself from life and from human experience, and the assumption that his method is the method that is able to secure the knowledge of reality!!] To survey all time and all existence without foreboding and without hope, is his aim. The time is past for men to ask of either philosophy or religion a guarantee of the satisfaction of any of their mundane personal interests."[17]

Such sentences fairly bristle with dogma, the first being a personal and human demand for abstract theory, and the second for that demand to be fulfilled without the assistance of any subjective or personal reactions and values. The whole world of values is thus thrown out bodily, save the one value of speculation, and this in a very limited and sectarian form. Take it where you will, all presumptuous and high-handed philosophies ultimately are mere expressions of dogma, axiom, and assumption. James made no mental slip when he remarked that "The solving word, for the learned and the unlearned man alike, lies in the last resort in the dumb willingness and unwillingness of their interior characters, and nowhere else." It would appear, then, that all science, all speculation, all theory, goes back for its justification in an indomitable burning or will to think, a will to believe in an external

[16] *Mysticism and Logic*, 32.

[17] *The Self and Nature*, 299.

[18] *Essays in Popular Philosophy*, 215.

universe, a will to believe in natural necessity, a will to accept the validity of thought and experience for reality. In the final issue, these branches of human activity land in immediate desire and immediate experience and judgment. Now this throws us back again upon a theory of intuition which the philosophy of values has not yet given us, but it demonstrates how identical are the values and axioms of science and speculation with those of the rest of life.

The significant point of the survey of axiom and value is to note how insistently we are thrown back upon a conviction of the unity of life, and the supremacy of the organic whole of human desire and experience. Hence, philosophy as a summary of man and his world in terms of truth, is never safe apart from the total experience and total reaction of man to his world. And psychologically, the failure of compartment philosophy to give man a whole and sane view of reality is due first of all to vicious compartment existence and the specialized world of everyday living and investigation. And such vicious and inadequate philosophy can never become superseded by one which makes provision for all of the fundamental values of life until our investigators and philosophers become deep and comprehensive in their personal life, in their appreciation of vital human values, and in their keener personal reactions and judgments.

It is therefore dangerous to philosophy to forget that thought and all of dogma, of speculation and of rationality, in common with all other phases of human activity, spring out of the unseen causes which have made both man and the universe, and that in every department of human life in human society, in the human soul, are values and axioms just as fundamental and just as valid as those of science and speculation. In each case the validity of the value and its dogma in human activity is

justified by its relation to human and social self-realization (under point of departure of the Good), and the final proof of any such values or axioms is a faith in life and willingness to be guided by its demands and its higher impulses. Rationality and the external world of things and persons are values which express the will of the energy beneath life and in life, and man will therefore persist, as he will persist in its other laws, in expressing it. Can this will be trusted? Yes, if we have health, and faith in the goodness of the energy beneath life.

It would seem, then, that philosophy is the institutional form of one imperative value of human life, and that the only true philosophy is that which is based in the total will of the energy beneath life, that is, in the total group of imperative values. What are the imperative values of human life? What are the values which persist throughout history? We can find the answer partially by introspection upon those values within ourselves which will not down; and we can find the answer partially by reference to psychology and sociology. Unfortunately, limitation of space allows for a mere suggestion of the thought, with no chance to defend the position taken. But would not any list of fundamental values or dogmas or axioms of life include the following?

1. *Personality.* Anti-nihilism. Postulate of the self as a living agent, or center of experience.

2. *Society.* Anti-solipsism. Postulate of other like-minded selves with whom we can communicate.

3. *Thought.* Anti-skepticism. Thought valid for an objective world, and an objective world real and valid for thought.

4. *Science.* Order in the universe; systematic and universal connections among phenomena.

5. *Life evaluation.* Optimism. Life is worth living; there is attainable worth in life and reality.

6. *Morality.* Reality of higher law in man, and of presence of evil to be overcome; reality of moral and righteous order through which or whom virtue will be rewarded, and evil punished.

7. *Art.* Reality and validity of intensity, beauty, and dramatic values in life and in nature.

8. *Religion.* Existence of an object of worship of such character that man finds in loving submission to God's will ultimate peace and rest, removal of the sense of sin, satisfaction for infinite and pure companionship, and the finding of one's true place in the plan and purpose and law of the universe.

9. *Immortality.* Hope which surmounts transitory tragedy. Eternity of existence, without which life is valueless, and the satisfaction of the other passions of values of man futile.

10. *Freedom.* Reality of the power of self-direction, decision, and self-determination in man, and contingency in nature.

These are the values which have persisted and will persist in life as long as man is true to his spiritual nature. What is their significance for philosophy?

When one digs to the depths of human existence, he finds activity and assertion in definite directions. These lead toward human self-realization (personality), and social self-realization (civilization). And here one stands on the rim of the impenetrable, and, with open eyes, realizes that all of life rests upon faith in the goodness and integrity of these forces which are pushing man toward his objective. Such a faith underlies philosophy and the demand for speculation, and one must either accept it, or

deny with the sickly and empty voice of skepticism. With this realization in view Truth must be defined anew. *It appears, then, that imperative value is Truth, or that individual and social self-realization is Truth, or that fulness of life is truth.* Such is the intellectual credo of a study of the grounds of theoretical activity and its relation to the rest of man's activity. It is at this point that pragmatism and its sister-irrationalisms break down. For the demand for rationality and theory, one must remember, is one of the imperative values, and to deny the dignity of the mind and the knowability of the external world is to repudiate the conclusion of the study of axioms and values. It is only when the whole of life or one of its imperative values is denied that rationality is to be questioned. And such questioning will not lead to intellectual skepticism, but to a rejection of the specific theory involved as false or inadequate.

Value is Truth and imperative values are the truest Truth— such is the deepest epistemology to which man has recourse by any law of reason. There is nothing deeper than hope, faith, worship, joy, character, righteousness, emotional insight, love, wonder, inspiration. The spiritually-minded, common-sense man is perfectly right in turning in disgust from the skepticism of rational sophistry. His is the innate philosophy of life, an intuitive philosophy of values.

Life, then, is a faith, a health. Fulness of life, self-realization, is the supreme health and faith. This health is the final truth we know, and no theoretical objection against the health of life is rationally justifiable. The choice in philosophy is between faith, assertion, life; and death, vacuity, nothingness. The choice must be personal, and in this choice philosophy flattens back into our whole evaluation of and reaction toward life.

Four questions, no doubt, have arisen, and in the limited space allotted, they can only be mentioned and their solution suggested. First, it may be objected that some fundamental values may be accepted, and others rejected; that, for example, the dogmas and values of truth and logic and science may be accepted, but not the values of hope, immortality, and righteousness. Here one must admit that we may read life and history differently. If we have eyes to see and see not, or see astigmatically, there, is no cure but the cure of the spirit, of the heart, of the evaluating mechanism, and this is the function of art and religion. One may, however, turn the question by asking what right we have to accept a part of life and repudiate the rest. Secondly, it may be objected that evil is universal enough to appear as a fundamental value or law of reality. The reply is merely to point out that evil is a problem, and therefore not in the will of self-realization. It is that which destroys the will and expression of life. It is therefore not a part of the law beneath life, but the *denial* of the law. Goodness is the fundamental point of departure in life and in philosophy: in life, from the moral affirmation of self; in philosophy, because without goodness and integrity in both ourselves and in the world-ground, we are lost, and our faith is vain. Thirdly, it is objected that our philosophy opens the way for the dogmatic validity of personal whims and wishes. But I have not argued for whims, but for the acceptance of the broad desires and affirmations of life. And who shall say that the demand of the human heart for God and immortality is any the less a true affirmation than a similar demand for truth and an external world? Last, it is objected that there are values and insights which are not universal, but which belong to the spiritual and aesthetic aristocracy of the earth. Are these values to be excluded from reality because they are not universal? Value *is*

truth, and those value-experiences, those hours of insight, of beauty, of depth, of mystery, of expansiveness, of faith, bearing, as they do, the affirmation of our noblest selves, these are the high water-marks of life, and the guiding stars which lead the world to its intellectual, spiritual, and utilitarian goal. To trust our best moments is perfectly rational. Why should we not do so? Failure to do so is to join the "spirit that denies." Eternity, one believes, *will* affirm the conception of an hour. And, in some form, one must hold to the truth of Sir Oliver Lodge's assertion that "I will not believe that it is given to man to have thoughts, higher and nobler than the real truth of things."

The first justification of life is the health of life itself; the final justification of any of the values of life, including the value of speculation and science, is life likewise; and the final authority and criterion of truth is life also. There is no logical way out of such a conclusion, although the rationalist may chafe under it. And to the question "What is life?" one can only turn to himself and to mankind in the human drama, can only turn to the higher convictions and imperatives which come forth as songs from the soul of him who seeks and obeys the higher law of righteousness. There is an upward striving in reality. In the clod there is something which struggles upward into life; something there is in life which struggles upward into man; and there is something in man which struggles upward—to God. This tendency we may follow if we will, and to one who does so comes the conviction born of insight that such also must be the way of philosophy if it would know truth. And here it is that philosophy, after all, flattens back into the personal vision, for which there is no substitute. If man hath no eyes with which to see, that is his misfortune or his punishment; and as

Ibsen has said, "The Devil has no stauncher ally than want of perception."

By all rational standards, then, one is compelled to affirm that the imperative values of life are dogmas or axioms to be accepted by philosophy in its search for theoretical formulation of truth. The deepest truth available to us is the truth of life and the values of life, and among these values the dignity of human thought is one. But life itself, with its noble hungers and thirsts, its unity, its fulness, its spiritual affirmation, is the final authority and the final dogma which thought reaches. Here we reach the truth that life is affirmation, affirmation is faith in the inner compulsions of our being, and faith is health. There is no other way known into the sheepfold of truth.

THE PHILOSOPHY OF AMERICAN LIFE

BERNARD C. EWER.
Pomona College

A GREAT philosophy is a point of view rather than a system of concepts. More than one great historic philosophy, in fact, has received its systematic formulation long after the death of its originator. Many an imposing system, too, wrought out in ponderous volumes of topics and subtopics, has proved lifeless. Philosophic vitality lies in the central idea, the living soul of thought.

We have had in American philosophy one vital spark of originality, and, so far as I am aware, only one. This is not to say that our country has lacked philosophic learning, or has failed to make notable contributions to systematic reflection. The work of Ladd, Bowne, Royce, and their disciples will always command respect and afford philosophic sustenance for the thoughtful. Some of this work seems to me distinctly the best literary expression which has been given to certain historical points of view. But it does not possess the peculiar characteristic of expressing the essential spirit of a time or people, of depicting in conceptual terms the mental life of a nation. It is this characteristic which distinguishes the philosophic utterances of William James and John Dewey. Their philosophy, commonly called pragmatism, is a revelation of certain moods of the human spirit, and, I believe, uniquely expressive of the soul of America.

In the few minutes during which I may claim your attention I should like to indicate briefly the systematic outlines of this philosophy, i.e., its principal concepts in the fields of metaphysics, epistemology, ethics, and the philos-

ophy of religion. This is not a discipular advocacy of pragmatism, or a critical attempt to evaluate its merits. I wish simply to exhibit the logical skeleton of a philosophy the living power of which seems to me very great, and which possibly is destined to play an increasingly large part in the affairs of mankind.

First, then, with regard to its metaphysical basis, let us note its fundamental assertion that *reality is active experience*. This doctrine is sharply distinct from other types of metaphysical theory. (a) It is not to be confused with the metaphysical dualism which finds reality to be ultimately of two kinds, matter, or physical energy, and mind. It is true that some of James' utterances, especially in his earlier writings, have a dualistic sound. But this, I think, is merely the inevitable use of language which was not constructed for philosophic purposes. James' real thought in the matter seems to me to be found rather in his later essays, particularly "Does Consciousness Exist?" and "A World of Pure Experience." Dewey's position is harder to discern, but such notes as I have made on the point seem to me to indicate the same metaphysical assumption. (b) This assumption is opposed to the idealisms which declare that reality is a transcendent or absolute experience, or system of ideas, or act of will. It has a certain puzzling kinship with voluntaristic idealism, but it emphasizes the reality of the finite being and repudiates the Infinite or Absolute Self and all its works. In this sense it is *pluralistic*. You will perhaps recall James' destructive analysis of the concept of relation, a concept which is the corner stone of absolutist philosophical structure. Dewey's thought here again is less explicit, but it is clearly enough implied in his teaching of the possibility of real accomplishment in this world of particulars. (c) It is also to be distinguished from such an empiricist metaphysics as that of John Stuart Mill. Reality, for our

American pragmatists, is *active* experience. Never in the previous history of thought, so far as I am aware, has empiricism been stated in precisely this form. Experience has been regarded as passive. According to this philosophy we *make* our own real universe, in reaction to our environment.

Experience in its highest form is both *social* and *scientific,* or rather is scientifically guided. How these features are blended we shall see presently. Here we may note simply that pragmatist philosophy reflects the contemporary preeminence of scientific study, and the new scientific and humanitarian interest in the phenomena of society.

So much for the metaphysical theory of pragmatism. Its epistemology has been a battle-ground which it is hardly necessary to review in this meeting. I may remark briefly that the functional conception of knowledge, i.e. the conception of it as the *active operation of ideas,* the truth of which is identical with the success of operation, stands in contrast to the dualistic view that truth is the agreement of ideas with their objects, the said objects being generally independent of our ideas about them. According to pragmatism, objects are aspects of our purposes; in other words, we come back to the metaphysical assumption that reality is active experience. Further, the pragmatic doctrine stands in contrast to the teaching of idealism that truth is the agreement of finite ideas with the thought or feeling of the Absolute Mind. It seems to me virtually to abolish the historic distinction between the phenomenal and the noumenal, between appearance and reality, though of course the ordinary unphilosophical meaning of the terms remains. Facts are real as we directly experience them or study them scientifically, and there is no satisfactory evidence of a more "ultimate" reality. James' antipathy to Kant is especially significant in this respect. Scientific investigation is not the mere

deciphering of symbolic characters on a veil which ever conceals the real stage, but is a really illuminating advance into the unknown. Experimentation is therefore a a vital necessity of the mind in its search for truth. We *create* our truth, in fact, by the process of experiment.

Passing to the field of ethics, I have the impression that pragmatism is concerned less with the traditional conceptual problems of the subject, e.g., the ultimate nature of goodness and the moral possibility of indeterminism, than with what may be called ethical methodology, and the practical business of making improvements in this very sad world. James seems to take it for granted that we know well enough what to aim at, at least ordinarily, and that our difficulty is that of earnestly realizing our aims. This difficulty is due to the imperfection of human nature, and accordingly he addresses occasional hortatory remarks to the will, remarks which grip us as moral exhortation seldom does. Dewey is less inclined to emphasize individual responsibility and the unique force of active personal conscience. His contribution to the subject is mainly methodology, which seems to me his greatest philosophical accomplishment. According to it socialized effort, frankly experimental but scientifically guided, is the supreme duty of mankind. The distinction between this point of view and the traditional one of assuming absolute principles of right and wrong which we obey or disobey can hardly be exaggerated. One who finds, as an increasing number of thoughtful persons are finding, that mankind, and especially the rulers of mankind, actuated by other principles, have made a sorry mess of human affairs, naturally looks with favor upon ethical pragmatism.

This matter is so important as to deserve one or two concrete illustrations. James, like the rest us, looked upon war as an evil. But he saw psychologically its tenacious roots which do not yield to moralistic exhortation,

and he saw also its genuinely virtuous side. So he proposed in his essay, "The Moral Equivalent of War," a substitute which would exhaust the pugnacious energy of war makers in constructive rather than destructive ways. The enrollment of the fighting forces of society in the more hazardous occupations on the ocean, in the mine, in reclamation works, and the like, is an idea which every fair-minded person will regard as at least worth trying.

Peculiarly instructive for our present purpose are Dewey's articles on political topics, particularly his current ones on Far Eastern questions. They are characterized by keen observation of fact, a democratic social idealism, and reiterated recommendation of experimental method. As opposed to the sort of talk and surreptitious performance which are prodding and dragging the world into another war, they exhibit pragmatism in its most dignified aspect, and suggest that it, quite as much as the absolute idealism of German thought, may have tremendously important political implications.

It is in the field of religion that I find pragmatism least developed. Dewey appears to lack interest in the subject. Some of his pupils have discussed it genetically, historically, and psychologically with acumen; but their discussion can hardly be said to crystallize in the doctrines of a philosophy of religion. We are perhaps justified in saying that religion itself, pragmatically speaking, is an energetic social idealism or "meliorism." James has not only given us a psychological justification of religion in its usual meaning of belief in a transcendent power, but has offered also some metaphysical suggestions concerning the relation between God and man. His characteristically empirical attitude toward the problem of the survival of personality is likewise noteworthy. That problem seemed to him best dealt with by experiment along lines of so-called "psychical research." So far as I am aware, however,

these suggestions have had no great influence in the ranks of students of philosophy.

But the significance of pragmatism, as I said at the beginning of this paper, lies less in its formal conceptual statements than in its central point of view, the peculiar attitude with which it faces the universe and human life. This attitude is youthful, adventurous. The pragmatist finds present experience real and animating. He discovers truth in practical ways. He works experimentally to better human life. And he is rather unobtrusive in religious matters apart from their ethical implications. On the whole I am inclined to think that this attitude is increasingly prevalent, and that there are many American citizens who have no technical or literary acquaintance with pragmatism, but are nevertheless in this state of mind. More than any other point of view and scheme of thought it seems to me to constitute the philosophy of American life.

ON LOGIC AS SCIENCE AND AS ART

ERNEST C. MOORE.
University of California, Southern Branch.

WHEN THE will of the late Dr. Charles Arthur Mercier came before the Probate Division of the London courts it was found that he had provided for the setting up of a professional chair of logic and scientific method.

"This purpose of this foundation is that students may be taught not what Aristotle or some one else thought about reasoning, but how to think clearly and reason correctly, and to form opinions on rational grounds.

"The better to provide that the teaching shall be of this character, and shall not degenerate into the teaching of rigid formulae and worn-out superstitions, I make the following conditions:

"The professor is to be chosen for his ability to think and reason and to teach, and not for his acquaintance with books on logic, or with the opinions of logicians or philosophers.

Acquaintance with the Greek and German tongues is not to be an actual disqualification for the professorship, but, in case the merits of the candidates appear in other respects approximately equal, preference is to be given first:

"To him who knows neither Greek, nor German.

"Next, to him who knows Greek, but not German.

"Next, to him who knows German, but not Greek.

"Last of all, to a candidate who knows both Greek and German.

"The professor is not to devote more than one-twelfth of his course of instruction to the logic of Aristotle and the schools, nor more than one-twenty-fourth to the logic of Hegel and other Germans.

"He is to proceed upon the principle that the only way to acquire an art is by practicing it under a competent instructor. Didactic inculcation is useless by itself. He is, therefore, to exercise his pupils in thinking, reasoning and scientific method as applied to other studies that the students are pursuing concurrently, and to other topics of living interest.

"Epistemology and the rational ground of opinion are to be taught. The students are to be practiced in the art of defining, classifying, and the detection of fallacies and inconsistencies."

Logic is an old study. It was begun by Socrates, developed by Plato and formulated by Aristotle. Before their time men had thought; in Babylonia and Egypt there had been a good deal of thinking about those race-old fundamentals—food, clothing, and shelter— and about such secondary things as gods, priests, kings, soldiers, tax-gathers, etc; but the Greeks were the first to think about thoughts, to ask what they meant, how men came to have them, what reliance they could place upon them, and how they could perfect them. At that point began a struggle to understand what knowledge is and how men get it, which goes on to this day and which will most likely go on as long as folks endure. Knowledge—the knowledge of the farmer, the carpenter, the shoemaker, the pilot, the general—seems to be a simple thing. But knowledge is not a simple thing, but almost ineradicable confusion.

There are three great names in the history of logic and two lesser names, and all of them are the names of men who failed in their undertaking. Aristotle is the first. Socrates spent his life in urging men to develop the same sort of knowledge of thinking, of goodness, of ruling that their fellowmen already had of carpentry, weaving, temple building, pottery and shoemaking. If we want to know anything, he said, we must find out what it is for. We

must work out a notion of what it means and, having that notion, we can then use it. What does it mean to be just or to govern? What is justice? What is statesmanship? What is truth? What is beauty? These questions he thought could be answered in just the same way as the question; What does it mean to make a pair shoes, to build a house, to carve a statue, to pilot a ship? If one is trying to cure a disease, he must have a notion of what health is and a notion of what this disease is, and he must so work upon the disease that it will be transformed to health. Knowledge for Socrates is practical. One gets it by means of getting notions of what he wants to produce and of what he has and of how to produce what he wants from what he has. He works on things by means of notions. These notions are not things but thoughts; and these thoughts are very mysterious. Where do they come from? One never sees equality or justice or health or a point or a straight line or a circle. He only thinks them. The things which we see are more or less like them but there is no circle in nature, no exact justice, no perfect truth or beauty in things. Are they then intimations of our previous beatific existence, recollections of experiences in the Elysian fields, memories of what we knew in heaven before our birth? The things of this world are many and not one of them is perfect. They are born and pass away, but that which is perfect cannot pass away. Equality, justice, truth, wisdom must endure.

All knowledge was practical at first—for Socrates it was just finding out what we must do and know and how to do it. I think it was the same for Plato, too; but Plato was a poet as well as a Socratic and hypostatized justice and beauty and truth and wisdom and talked of them sometimes as though they were not thoughts which we make and use but heavenly existences, more real and more worthy than the things of this world. You have all seen

the figure of Justice on the courthouse. Plato sometimes talks as though that figure were not there to remind men of the justice which should be in their hearts and in their deeds, but to remind them of that awful Justice which stands as an archangel before the throne of God. Our thoughts, you see, can be instruments if we take them as Socrates took them; they can be images of existences if we take them as Plato is said to have taken them.

Right here the woes of logic begin. Is it a human instrument helping us in human ways to a larger knowledge of human things or is it an oracular science giving absolute truth?

Aristotle's logic is for certainty. Science is demonstration. Mathematics is its type, and whatever truths are scientifically arrived at must come in the same manner. If we measure the angles of a triangle and find that they equal two right angles, we cannot be said to have scientific knowledge that their sum is two right angles. We must prove that by considerations which follow the definition of a triangle and the axioms of geometry. Reasoned truth—nothing merely empirical—but conclusions flowing inexorably from their premises, truth founded, buttressed, impregnable, absolute, is what logic must provide.

Did you ever stop to think of the falsehoods which mathematics is responsible for? It was the pattern science for Plato and Aristotle. The objects with which it deals are not points or lines or circles from the sense world; the rain does not wash them out or the grass efface them. They are eternal and unchanging and the truths which thinking can demonstrate concerning them are eternal and unchanging. Logic must follow its model. It must give us eternal and unchanging truths, too.

You have heard of the pride of the Pope due to his possessing the power to bind and to loose here and hereafter. Just so the Aristotelian had an imperious nature. He pos-

sessed the certainty of absolute knowledge. He reasoned by syllogisms. "Syllogism is a discourse," said Aristotle, "wherein certain things [premises] being admitted, something else different from what has been admitted follows of necessity because the admissions are what they are." Its typical form is:

All men are mortal.
Socrates is a man.
∴ Socrates is mortal.

Now let us ask Aristotle what degree of certainty we have here and just how much more the conclusion tells us than we knew in the major premise.

How can we ever know that all men are mortal? Some may have gone to heaven in a chariot of fire. "All" applies to all who are to come through all the ages. It may be that death is a penalty of our ignorance. In days to come it may be conquered. At any rate, how do we know of a certainty that all men must die or that any assertion which we can make will include all the subjects of which the assertion is made? Aristotle says no science proves its beginning axioms. Its first principles cannot be demonstrated. They are indemonstrable. Experience calls attention to them. They are apprehended as self-evident intuitions of mind. If your reasoning from your premises is faultless you can arrive at conclusions which are just as certain as your premises. But now you are a long way from absolute certainty, for something has happened to mathematics in recent days which shows that its axioms are by no means so reliable as they were once thought to be. They have been found to be postulates, merely positions taken, so that all mathematical reasoning now takes the hypothetical form—if space is three dimensional, parallel lines will not meet; and in the new logic all ab-

stract universals are hypothetical, "All men are moral" being no more universal than: If I had a toothache, I should be wretched; or, If this man has taken that drug, he will be dead before tomorrow. Certainty disappears, postulation or supposing takes its place. But, is it true that the conclusion of the syllogism gives a new truth? Does it lead to something different from what is admitted when the premises are taken? The truth is that there must be no more in the conclusion than in the premises. The conclusion is not discovered by means of the premises but only uncovered in them.

Another doctrine for which Aristotle is responsible is the doctrine of natural kinds or fixed species or real definitions. To define anything, we must say what its kind is and then specify its difference from other varieties. To define Socrates, we must say he is a man. We cannot say he is a philosopher, a patriot, the inventor of knowledge, the wisest of the Greeks; but only that he is a man. I had an experience some years ago which brought out the futility of that view of definition. There is a series of classics published in what is called "Everyman's Library." They are printed in England and imported by Dutton and Company, who pay an import duty upon them. Now it happens that many of these volumes are used as textbooks and that textbooks come in free of duty while other English books must pay duty. The firm of Dutton and Co., brought a suit in the Appraiser's Court in Boston to establish the fact that certain of these volumes should come in duty free, and called several Harvard professors who were using them in their classes to establish that fact. I was asked by the U. S. Attorney, "What is a textbook? I replied, "It is a book used as a text for classroom discussion." "But must it not have an introduction, notes, explanations, a glossary?" he asked; and for a half-hour we battled over the question of whether a textbook is a

textbook in its nature or in its use. Aristotle taught that there are natural kinds, that they are fixed and definite.

Darwin found out that kinds are not the fixed furniture of the world but that kinds flow into each other. Our classifications now-a-days are recognized as being groupings which we ourselves make on whatever principles may be pertinent to our inquiry. As a consequence we make as many definitions of a class as there are principles or ways of grouping or regarding its members. We are no longer limited to *the definition according to nature* of Aristotle.

It is, I take it, quite impossible for any one who is now alive to imagine the intellectual despotism by which through the ages Aristotle earned the designation of "the master of them that know."

About 1527, a young lad, the son of a charcoal burner, his name Peter Ramus, came to Paris and hired himself to a rich student as his servant. He studied at night and made himself the foremost teacher of his time. He tried to reform the study of logic. "When I came to Paris," he says, "I fell into the subtleties of the sophists and they taught me the liberal arts through questions and disputes without ever showing me a single thing of profit or service. Never amidst the clamor of the college where I passed so many days, months, years, did I ever hear a single word about the application of logic. I had faith then [the scholar ought to have faith, according to Aristotle] that it was not necessary to trouble myself about what logic is and what its purpose is, but that it concerned itself solely with creating a motive for our clamors and our disputes. I therefore disputed and clamored with all my might. If I were defending in class a thesis according to the categories I believed it my duty never to yield to my opponent, were he one hundred times right, but to seek some subtle distinction in order to obscure the whole is-

sue. On the other hand, were I disputant, all my care and efforts tended not to enlighten my opponent but to beat him by some argument good or bad; even so had I been taught or directed. The categories of Aristotle were like a ball that we give children to play with and that it was necessary to get back by our clamors when we had lost it.[1] He took his master's degree with the thesis that all that Aristotle said is false. But Peter Ramus did little to create a new logic.

Then came a new time, a veritable age of discoveries, when a few men quit threshing the straw which Aristotle had left and began by independent study to make discoveries, huge discoveries. Such men were Columbus, Magellan, da Vinci, Kepler and Galileo. With them modern science was born. Francis Bacon (1561) is sometimes named as it founder. He was rather its literary promoter. In 1620 he published a new logic built upon the thesis that knowledge is power. He did not approve of what had been accomplished thus far. "Men have entered into the desire of learning and knowledge, seldom sincerely to give a true account of their gift of reason to the benefit and use of men, but as if they sought in knowledge a couch whereon to rest a searching and wandering spirit; or a terrace for a wandering and variable mind to walk up and down with a fair prospect; or a tower for a proud mind to raise itself upon; or a fort or a commanding ground for a strife and contention; or a shop for profit and sale; and not a rich storehouse for the glory of the Creator and the relief of man's estate." Knowledge, the new knowledge, is not to be for consolation or delight or vaunting or strife or money, but for use. Men must lay aside all prejudices. They must employ a new method—that of observation and induction. But when he comes to the details of the method of discovery to be followed he describes the process as

[1] *Studies in Dialectics*, Book IV, p. 151. Quoted in Grave's *Ramus*.

the accumulation of facts and subsequently abstracting their identities and differences and so deriving laws or principles from them. "The value of this method," says Professor Jevons, "might be estimated historically by the fact that it has not been followed by any of the great masters of science." So Bacon, great as was his guiding of those who came after him, failed in his undertaking.

We come next to that mighty *tour de force* of philosophy, the logic of Hegel, the natural history of the eternally self-thinking truth. Hegel's logic is a dialectical deduction from consciousness of the nature of ultimate reality, a huge and glorious anthropomorphism making God and all things in the image of mind. To its author it was a demonstration of what mind must think, and what mind must think *is*. Subject and object are one. The mind of the thinker and the mind of the universe are identical. When we think existence, existence thinks in us. Hegel's system claims to be *the* philosophy itself, final and conclusive. Is it a mystic dance of bloodless categories or a true calculus of being? Is it the highest and most dazzling expression of Germany's empire of the air or is it the very texture and body of truth? Only the ages can tell. At any rate it has German lineaments. It is the most supremely confident and daring announcement of the human spirit in all history, and Dr. Mercier does well to insist that his professor of logic shall give himself to more commonplace and assured matters.

Last of all comes the so-called empirical logic of John Stuart Mill. He abjures metaphysical speculation. He will plant his feet on the firm ground of experience alone.

Just as Hegel tried to invent a logic which was wholly deductive and failed, so Mill tried to formulate a logic which was wholly inductive, and failed. Mill's, says Höffding, "tried to spin the forms of thought from their content, Hegel the content of thought from its forms." How

do we know that the sun will rise tomorrow morning? Because it has always risen every morning thus far. But what does what has been tell as about what will be? The major premise of every conclusion in science is, says Mill, that nature is uniform. How do we know that? We have experienced it so. We arrive at it by induction. But can experience go beyond experience and tell us for certain about what has not yet come to pass? Mill's answer is "Yes." Ours today is "No." Science does not give us certainties. It gives us probabilities and probability is, as Bishop Butler said, the guide of life. We do not know that the sun will rise tomorrow morning—nobody does—it may have generated nitrogen gas in such quantity as to explode before morning. Science does not give us absolute knowledge. Its declarations are hypothetical declarations. Its laws are hypothetical laws. It calls for faith no less certainly than religion does. Whatever else it is for, logic is not for certainty and it is worth while to know that. Dogmatism and fixed opinions die with that insight.

Thus far we have been talking of logic as a science. It is also an art. Its one object, whether as a science or an art, is to help us to learn to distinguish between good and bad reasoning. There is no such thing as logical proof that leads to absolutely conclusive truths, but in reasoning about matters of fact we can learn to be on our guard against certain ancient errors of procedure and certain habits of thinking which are dangerous and menacing. Can one learn to be logical? Can one learn to reason? "Of course," says Carveth Read, "logic does not in the first place teach us to reason. We learn to reason, as we learn to walk and talk, by natural growth of our powers, with some assistance from friends and neighbors. But to be frank, few of us walk, talk, or reason remarkably well; and, as to reasoning, logic certainly quickens our sense of

bad reasoning, both in others and in ourselves. It helps us to avoid being misled by others and to correct one's own mistakes. A man who reasons deliberately manages it better after studying logic than he could before—if he tries to, if he has not a perverse liking for sophistry, and if he has the sense to know when formalities are out of place. There are some mental qualities that a man can only get from his father and mother." "As a science," says President Hibben, "thinking has its fundamental laws, its logic; as an art it has no body of set rules which we may learn once for all, and ever after slavishly and blindly follow. There is no formula for wisdom. The art of thinking requires a command of all the resources of skill and inventive device of which our natures are capable."

The first point to remember is that one cannot think without a problem—that all thinking is due to perplexity or trouble and that the first step in thinking is to define the question, locate the difficulty or formulate the problem. The second step is to collect the facts which bear upon it—thinking is facing the facts.

Observation is not preliminary to it but is an essential part of it. Thinking which tries to go on without observation is intellectual somnambulism. The greatest charge against formal logic is that it is formal, that it neglects the context, that the middle term in the syllogism is frequently not the same in both premises—that it has the appearance of stating the facts and drawing its conclusion but really leaves them out of consideration. I saw an advertisement of a truck company in last Sunday's *Times* which ran something like this: The flow of commodities is what is required above everything else at the present time. Motor trucks are the chief agencies for the flow of commodities. But just at the time that everything which furthers the unhampered distribution of products is of the utmost im-

portance, your legislature considered a proposal to interfere with the business of trucking. At first glance that looks like a plain and convincing statement of facts. But I happen to know that Professor Derleth and some other engineers have been studying the roads in California to find out if possible how to build them so that they will not wear out so rapidly; they have been checking the loads which motor trucks carry and find them far in excess of the indicated load. In one case they found a seven-ton truck carrying twenty-two tons.

Some time ago the Ex-Secretary of the Treasury, Mr. McAdoo, said in a public speech here that some of the coal companies had reported a profit as high as 2000 per cent per year. Mr. Robinson told me that when he became a member of the Coal Commission it determined to smoke out the facts in the Treasury Department about that matter. It found that three coal companies had reported a profit of more than 500 per cent, one of them being of 2000 per cent, but that the total capitalization of those three companies was $11,000.00. Along with observation goes inference, a constant search for meaning. At first our conclusion is tentative, hypothetical, an hypothesis—we must test it. My automobile develops a squeal; that is my problem. I do my best to locate it, collecting as many facts concerning it as I can. I guess it is in the engine; that is my hypothesis. I test it by running the engine with the clutch thrown out. There is no squeal. It must be in the transmission. I go through the same process of locating it once more and finally determine that it is the body of the car. This may be taken as a typical illustration of reasoning, real reasoning—not disputing as a game. In it deduction and induction work together as warp and woof of the investigation. We start with facts—with a problem which requires us to interpret them—we collect such of them as seem to have a bearing on our problem. We

make a guess or construct a theory as to the answer to our problem. We deduce from that guess that if it is true certain things will follow from it if we try it out under test conditions. We do so and arrive at our result. The function of logic is to help common sense out of the difficulties which it comes to. The old view of the syllogism will not aid very much in convincing an unwilling opponent. The greatest use it can serve perhaps is to indicate the exact nature of the reasoning which is being employed. It is well, therefore, to throw the argument which is being used into syllogistic form. That will not settle the question of itself, but reducing what is being said to syllogistic terms will usually help to disclose its weakness or its strength.

EDUCATIONAL CONFERENCE

HOW TO STIMULATE INTELLECTUAL AND SOCIAL ATTAINMENTS ON THE PART OF HIGH SCHOOL GRADUATES

Synopsis of Talk Given by
PRESIDENT HARRY N. WRIGHT.
Whittier College.

THE PROBLEM is fundamentally a spiritual one and hence hinges largely upon the personality of the teacher. Those employing teachers should give more attention to other elements of personal equipment than scholarship. We should not decrease our emphasis upon scholarship, but should give stronger and more pointed emphasis to the spiritual and moral equipment of the teacher.

The stimulation of intellectual attainments in a High School student depends more upon the methods of teaching than upon the content of the course of study. In this connection it is notably important to teach in such a way as to develop initiative and independence in the student. By the project method and similar means we should seek to develop in the student of any age the spirit of research.

Obviously the social life of the high school deserves more attention in the way of directing it and improving it than it now has. The school administration should make provision for this as purposefully as provision is made for the teaching of any of our usual courses.

SOCIOLOGICAL CONFERENCE

A JUSTIFIABLE INDIVIDUALISM

FRANK WILSON BLACKMAR.
Dean of the Graduate School, University of Kansas

THIS is an era of social service. The stupendous demands of the world to care for the less fortunate members of society have quickened the philanthropic spirit to do for others to an extent heretofore unknown in the history of the human race. The movement is marked by thousands of organizations and societies collecting millions of dollars to relieve suffering, to improve material comforts, and to make a better social life. While not ignoring individual culture, the basis of the activity is to make this world a fit habitation for all members of the human race. *Speaking sociologically,* it is the fulfillment of the latest phase of practical civilization which teaches men to live together justly, righteously, and harmoniously. *Speaking ethically,* it is an attempt to realize upon the teachings of the man of Galilee the duty of man to his fellows—of brotherly love and sacrifice for others. It is, in fact, the ethical redemption of the race. From these two sources a wave of philanthropy has generated and spread over the world. War and its terrors and the suffering caused by it have quickened the philanthropic pulse and stimulated altruistic motives.

Simultaneous with this movement is the agitation for universal democracy and social and economic equality, the tendency of which has been to absorb the individual in the

mass, and subject him to a rule of the many. It has augmented the power of institutions and suppressed individual initiative.

The aspects of modern civilization give a vision of a machine-made world. Our ethics and our economics and our politics are machine-made. We go to the industrial world for our economic standards. Smaller grows the individual influence, greater the limiting power of the mass; everywhere is the command, fall in line. When the socialist takes up the defense of the individual, he ends with making the compact more binding. When the anarchist preaches his theory of individual independence, he ends by suppressing liberty and increasing the dominant power of authority.

The coin that formerly was bestowed by the giver to relieve the immediate sufferings of the neighbor now travels thousands of miles and is administered by great organizations to relieve distress and to reform the human race. The products of the toil of the laborer enter a great economic system run by power machinery and managed by an endless organization before it returns to him the necessities of life. He becomes a mere cog in the great industrial machine. The churches and the religious societies are co-operating in tremendous organizations in mass formation to carry the gospel to the world. The former simple duties of the citizen have been extended to embrace a world democracy. Based on the mastery of natural powers, the industrial world becomes a vast mechanism. Based on the industrial mechanism, society becomes a vast machine in which the individual sinks into insignificance.

If one stands on a lofty peak in the Sierras with the broad expanse of the mountain ranges extending in every direction, or gazes into the vast expanse of the starry heavens above, the consciousness of the littleness of the individual is overwhelming. He is powerless, awe-strick-

en before the great creation. Likewise standing at the doorway of the future and catching a vision of the vast mechanism of society, the individual realizes his insignificance. He lives his little round of duties according to order and when he has finished the great social machinery sweeps on without him. Yet this individual is greater than a galaxy of the heavens.

While these great movements of the social life are to be praised as the products of human endeavor, is it not time, "lest we forget," to consider that they depend for their success upon *a justifiable individualism;* and that without this type of individualism the industrial, political, and religious systems of the world—yes, the whole social fabric, will eventually fail?

All achievement starts and ends with the individual being. He is the material out of which the super-structure of civilization is reared. This little human dynamo is the source of power in which the world takes pride. While our education, our religion, our social reform have become mass plays, it must be understood that political, religious, or social organizations will not in themselves redeem the human mind from error nor establish happiness among mankind. The world cannot be redeemed by formula; men may not be educated or reformed in phalanxes. The great group activity of modern life has thrust aside the individual as an ideal. The old theory that if the individual, sound in body, sound in mind, with sterling moral qualities were properly trained he would carry into the world the leaven of righteousness and leaven the whole lump, has been overshadowed by the gigantic mass play of social reform and human progress. The reason for this change has its source in the fact that the individual has not been transformed to satisfy the demands of the social order. So the conclusion is reached by many reformers that individualism has no place in social progress. The error con-

sists in repudiation instead of regeneration. Even the sociologists deny the existence of the old individual and demand a new type created by society itself.

While it is inevitable that this old-time individual should be thrust aside as inadequate it is well to remember the source of his creation and his failure to function. It should not be forgotten that there is a foundation for this individualism which is deep-seated in nature. Nature has much to do with the creation of this neglected individual, and no social formula that does not recognize this can hope to get very far in the improvement of the race. It is necessary to work with nature to secure progress; even then we must be very wise, for nature has no ideals, no aims, but moves in accordance with well-defined laws external to self-determination.

Not only are men born into this world with different mental traits and unequal capacities, but their effort to survive makes traits and capacities more divergent in their adoption—for nature's processes accentuate inequalities rather than diminish them. This same nature has implanted in man a desire for individual survival. His first interest was self-interest; his first love was self-love. Primitive morality increases the opportunity to survive, but does not destroy the individual desires. The law of survival applies to man's spiritual existence as well as to his physical life; he desires spiritual survival as well as physical. The chief difference rests in the fact that primarily he is governed by the laws of organic evolution, while in the spiritual development he sets up an ideal and by effort and will-force attempts to approximate it. More than this, he seeks to raise the standard of his ideals, struggling to higher planes of spiritual existence. Yet there are spiritual difference and different spiritual capacities. His process of accomplishment is through association with his fellows. The law of love is added to the law of physical

process. Even this adds to his individual powers. He solves the social paradox by gaining strength through assisting his fellows. He learns that "It is more blessed to give than to receive," because it is ethical and scientific as well.

The environmental conditions, social and industrial, frequently determine the character of individualism. In the early history of the nation in a sparse population and a simple life, great emphasis was placed upon individual effort; indeed the mastery of a new country demanded it. The Puritan conscience stimulated it and the moral doctrines of the time preached thrift and the accumulation of property as necessary qualities of righteousness. The laws provided amply for the protection of property rights and the constitution perpetuated and enforced them. The idea of success primarily based on righteousness gradually came to be shifted to the accumulation of property as a measure of success.

The idea of early democracy enhanced the importance of the individual, for democracy had for its ideal the freedom and independence of the individual. In the mastery of the Mississippi Valley the stern efforts of the individual to subdue the soil and to build homes on the frontier made this individualism supreme. Not until this class of Western pioneers expressed themselves at the polls was real democracy born in America. This simple, frugal, hard-working life, built on thrift and conscience, represents one of the best phases of American life.

But in the latter part of the nineteenth century, with increased wealth, with population of great cities and the development of manufactures by the introduction of the machine, the passion for great wealth changed the attitude of the individual. The glory of the individual was not in achievement of moral values, but success was measured by the accumulation of wealth. Gradually the individual

became commercialized and spurious, and group activity became dominant.

The same laws of survival apply to the organized group in its relation to other groups. While the progress of the law of love and the establishment of justice among men has been slow to manifest itself, individuals in their relations to one another may obey and practice it, but as soon as they become members of a group they follow the group. Too frequently a group organized economically, politically, or religiously, seeking its own survival, manifests all the fangs and claws of red-handed nature. It proposes to survive in its contest with other groups by destruction or domination of its enemies. A person may be to all intents and purposes a Christian, but when he joins such a group the result of his action is pagan. The group becomes non-ethical, and no ethical social order can be put into practice where communities are dominated by selfish groups struggling with each other for supremacy and destroying and trampling upon the rights of individuals.

I know a man who appears to be honest in his dealings with his neighbors and a devout member of the church but who strikes hands with political demagogues and shysters, and develops a venal political gang. I know a man who in all his personal dealings with his neighbors and friends is controlled by the law of social ethics, but he joined an incorporated body of citizens who were seeking to amass wealth regardless of social welfare. He became one of the predatory band combined to carry out his selfish purpose regardless of the effect on the rights of individuals and of community welfare. As an individual he is a Christian, as a member of the corporation he is a pagan dwelling with pagans and fighting a pagan's battle.

We have not been able to project our idealism into practical life. Practically we are ruled by commercialism,

we are materialists; theoretically we are spiritual. A man will talk democracy, swear by the principles of Jefferson and the Constitution, talk justice and equality to all, and then enter a combination with his fellows to put over a political scheme or commercial combination for the perpetuation of group selfishness. If he could be oriented from practice he is a Christian and a democrat, but as part of a group he is an autocrat and a pagan. Individually and theoretically he is controlled by the law of love, but as a member of a group he is controlled by organic evolution or the survival of the fittest. As an individual he is spiritual; as a member of the group he is materialistic. Until this spiritual life can be made to permeate all activities, large or small, we may not hope for a homogeneous working society.

In the social ethics of the business world the German people ranked high, but Germany as a political group was non-ethical. She was red-handed in a ruthless struggle for survival. She taught and practiced dominance at the expense of others. As a nation she was a monster of moral apostasy. The individual conscience was submerged by the selfish greed of the group, and until that individual conscience is again free to act there is no hope of a regenerated Germany. The whole world has revealed the selfishness of the political and the economic group. The only redemption is the leavening influence of the quickened conscience and consecrated will of the individual.

Again, the problems of the practical life enforce the idea of individualism. To make better individual men and women is, after all, the universal aim of the social process. If a teacher in a college or university did not make better men and women of those under his direction, he would be an acknowledged failure. If a minister of the gospel did not make better men and women of those under his care he would be an admitted failure. But is the principle in-

volved in regard to the employer of labor different? The man in control of the shoe factory is doing a great public service when he co-operates with labor to make good shoes for the public, but has he done his full duty as trustee for social production, unless he makes better men and women of those in his employ? Has the great railroad company fulfilled its whole duty when it has furnished transportation at a reasonable rate? Should it not be held responsible for making better men and women of those in its employ? Capital and labor, employer and employee, co-operate to make a finished product for the service of mankind. Should they not co-operate in making better men and women? Tradition has said that the preacher and the teacher are missionaries of moral responsibility. Are they any more responsible for the welfare of those associated with them in their business than those who control the great business enterprises around which cluster the masses of humanity? No man has a right to individual control of business solely for his own gain; no one is justifiable in his individualism who does not assume responsibility for the moral and economic condition of those with whom he associates. *The only individualism that is justifiable is that which is built up in the service of others.*

The labor-capital problem is still unsolved. Indeed, under present conditions it is a menace to justice. How little we know about it; how little the contending parties know of each other! The main difficulty is found in misunderstanding. There is too much mass treatment of humanity, and too little opportunity for the exercise of individual choice and responsibility. All our social work with the laboring population has left the great problem unsolved. Irregularity of employment, subservience to forces beyond his control and no security of life, make the laborer an irregular and irresponsible worker, and an irregular and irresponsible man.

The great problem of the relation of organized capital and organized labor today hinges on the status of the individual laborer. What does he want? True, he wants a living wage, but greater than this is his desire for opportunity to be somebody. With him the job with a living wage is a means to an end. He wants approbation; he wants the human touch of life more than anything else. He wants a belief in himself as an individual. He wants an opportunity to show his fellows in his group the kind of workman he is, and not to be a mere cog in a complicated machine. Until he has an opportunity for this appreciation he will not be a successful individual. He must appreciate the importance of his work and be made to feel that he is rendering an appreciated service. Fundamentally a living wage and shorter hours of labor are necessary, but this will not solve the labor problem.

The desire to become part manager in the business does not dominate the individual laborer to the extent which agitators and writers seem to indicate. Deep in his heart he wishes friendly co-operation with others in making better living conditions with liberty of action as a man. He does not want charity, he does not want philanthropy, he does not want to be patronized, he wants to be a man among men. Wherever this fundamental cause does not exist among laborers it should be inculcated, for only through this can self-respect and character be developed.

The independent conscience is submerged in group activity. The group is frequently lacking in ethical nature. Its conscience is not the conscience of the individual members of the group. It has not been grounded in moral principle, for it is still a provincial race morality. But failure of individual conscience cannot be overcome by group morality or by group action of any kind.

Individual morality must be put on a higher plane. It must be based on keen insight, a quickened conscience,

and an individual responsibility of life. More of its idealism must be merged into the practical service to the larger humanity of mankind. Ideals must be reduced to a working basis. We need a new individualism, not of Adam Smith, of John Locke, nor indeed the individualism of the early pioneers of American achievement, but an individualism that rises supreme in conscience and character above the fogs of social order. This new individualism is not triumphant overlordship of fellow workers, but one whose right to existence is founded on individual character and social achievement. This individualism must have a broader base than mere earning capacity; it is the individualism of service; it is the glory of excellence of work, of accomplishment, something worth while; it is a disinterested attempt to put value into the world, not an inglorious attempt to take unto itself the products of what others have wrought.

Before this old individualism is transformed, a social justice must prevail that gives each one an opportunity for life and success. It is the long sought square deal of humanity. Jealousy and envy of individual rights and privileges must be replaced by zeal for social responsibility. To survive in the modern social order, is to be the best as well as the fittest. No individual may achieve real success at the expense of the suffering and failure of his fellows. Through necessary organization of effort a great social machine was developed in which the ordinary individual became a mere cog. Only those who by insight or ruthless endeavor were able to control the commercial and industrial forces became dominant individuals. These became the group that is known as profiteers. To take profit becomes the ideal of life. The simple righteousness of individual thrift thus becomes a menace to social order, when worked out with multiplied power of industrial development and industrial opportunity. This incongruity

of democratic life led to a call for social service. But social service failed to remedy the deep-seated evils engendered by the enormous importance placed on the ownership of wealth. The next phase of thought was to do away with individualism and develop socialism, community ownership and equality in the production and the use of wealth. This idea has degenerated into the extreme radicalism of today, which is nothing more than an attempt to put into practice the spurious doctrines of Marxian socialism. Socialization of the conscience and the will, and indeed of the memory, will succeed but socialization of property will not.

Instead of seeking a remedy in the extension of individualism it should be sought in creating a new regenerated individualism—an individualism that seeks to survive only through co-operation with and service to others. The individual who has accumulated wealth thus becomes a trustee of that wealth with a view to the betterment of society. This might be extended to all powers of the individual, inherited or obtained through education. He becomes a trustee of those powers for social betterment.

Our educational system is showing the dominance of the social order. The growth of higher educational institutions has conformed to an expanding civilization; first, the college following the main thought of the English universities, with the main purposes of educating ministers and Indians; then the college of liberal learning for the educated few, emphasizing the classics and the literary studies, and introducing natural science and modern languages, history and political science and sociology; then the special schools of medicine, law, and engineering; and finally, vocational training. Gradually the field of education has been expanded to teach everything that the variety of life of the public demanded. Gradually the

plans of college education were lowered to take in all classes of people. An institution once sacred to the few elect becomes a place where the sons and daughters of wage earners, artisans, professional people, the rich and the poor from every walk of life mingle together on a common basis. This no doubt is as it should be, but the excessive demand of the public has forced the program of the college to educate everybody in everybody's own way. As a result we have developed quantity schools instead of quality schools, and have mass education instead of individual instruction. We have been forced to teach subjects rather than teach men and women. We have paid too little attention to superiors and wasted our energy in trying to elevate mediocrity.

What is needed is to return to the starting point of demarcation, and build up a new individualism in education.

It is common talk that colleges develop leadership, but the selection and training of leaders is not practiced. Too many of the thousands who attend our colleges are there because it is a mode of life, or because of a desire for commercialized use of education. Each year the tide of high school graduates rises; each year more flow into the universities and colleges. The remedy is found in more and better equipment, better teachers, fewer students per teacher and individualism in instruction, and a better system of weeding out those who are not inspired to higher learning. A college education is a sacred thing, something to be cherished in itself, something to be consecrated to the service of others. In the school as elsewhere in life there are two classes of people, those who do the work and those who get in the way. Too much energy is spent on the latter class and too little on the former.

In the dedication of a great hall like this to higher learning, let us see to it that it is for the high purposes of schol-

arship, intellectual and moral integrity, and social service, and that students shall not be taught *en masse*, but as individual minds to be trained and individual characters to be developed, that leaders in science, religion, social order, and statescraft shall not be wanting in the land.

Our education should seek to give moral vision of life and moral achievement as the special estimates of success. There is danger in excessive vocational training because the basic principle is the power of the dollar to achieve success. To give people intellectual integrity to teach them to see straight, and moral integrity to do right, to set higher ideals and teach men to follow them, is more important than to teach them the process of the accumulation of wealth. Our schools are teaching much sociology, which after all is for the purpose of understanding society and of causing people to live together harmoniously and justly, without waste of individual or social energy. All should be prepared to serve society and many should be trained in the principles and practice of social direction. There is need today of social engineers as well as civil, mechanical, and chemical engineers. Society has become such a great machine that it must be directed by experts. We need to know how to live together in harmonious cooperation. The World War with all its horrors is but a brutal acknowledgement that we have not yet learned how to live harmoniously and justly. James Bryce in his latest book asserts that Christianity is not practiced. Social revivals, humane laws, social service, sweeping reforms, religious propaganda, all good in themselves, will not suffice. The individual material out of which the social superstructure has been reared, is the crux of the whole matter. If we would build wisely we must have better material.

Let our education see to it that this individual shall be well born, well trained in body and in mind, sound in

moral ideals, effective in moral practice, and filled with a spirit of service to others. Let him pride himself in his individualism as an instrument for the betterment of the race and he will possess *a justifiable individualism*. Moreover let him abide by the teachings of the Man of Galilee, and his justifiable individualism will become a *glorified individualism*.

EDUCATIONAL SOCIAL WORK IN NORTH CAROLINA

EUGENE C. BRANSON.

Head of the Department of Rural Economics and Sociology, University of North Carolina.

Seven out of every ten families in North Carolina live outside of towns and cities of any type or size. There are also seven rural families to the square mile throughout the state. They are located out in farm communities but in solitary dwellings. They settled in social isolation in an earlier day, and so they remain. The inward urge to organization has been small, and the excessive private-local public laws of the state reflect the dominant private-local mindedness of the people. But North Carolina now is moving out of private-mindedness into civic and social mindedness.

In North Carolina more than half the dwellings in town and country districts are occupied by renters. This is similar to the situation in the United States as a whole where, according to the 1920 census, 55,000,000 people out of 92,000,000 were landless and homeless—a sorry state of affairs in a country where there are so many idle, wilderness acres. In North Carolina 1,200,000 people, of both races, are landless and homeless—cultivating other people's acres and, like poor Dante, going up and down other people's stairs. Our farm tenants are pilgrims and sojourners, with no stake in the land. They are forever seeking new fields and have little chance to develop "an abiding interest in schools and churches, in good roads, public sanitation, in local law and order, in community organizations and enterprises for progress and prosperity,

welfare and well-being."* The fatal law governing these circumstances is: The more populous and prosperous a community becomes, the fewer the people who live in homes of their own, and the larger the multitude of tenants and renters.

Isaiah's analysis of the cause is correct when he says that it lies in joining house to house and laying field to field until no place is left in the earth for the poor.

In North Carolina we are seeking the way out along three lines: (1) in establishing co-operative credit unions among groups of small wage earners and among our farmers, under our present co-operation laws; (2) in a large expansion of business by our building and loan associations; and (3) in a proper progressive land tax, modeled on the New Zealand laws, which have now been operating for twenty-five years or more.

The *modus operandi* by which the University is assisting in the solution of rural problems in North Carolina, such as the problem which has been briefly described, is illustrated by the *University News Letter* and by the State and County Clubs. The *News Letter* is a weekly publicity news sheet which goes directly into 20,000 homes of North Carolina for fifty-two weeks of the year. It goes free of charge to everybody who wants it and writes for it. It is a weekly message from the University to the people of North Carolina. The *University News Letter* is not a college gossip sheet, nor a college advertising sheet. It is a publication which for seven years has been giving the results of nearly 800 studies that have been made in the fields of local economics, sociology, and civics in North Carolina.

The work on which the *News Letter* articles are based is done by volunteer students and members of the faculty of the University. These volunteers from year to year number about one hundred. When the work by the

*E. C. Branson, *The University of North Carolina Record*, January, 1921, pp. 62ff.

students attains to the laboratory standards of the Department of Rural Economics and Sociology it receives regular university credit.

The idea behind the *News Letter* is that the specific job of the social sciences is that of helping people to become competently aware of the problems of life and livelihood, of arousing social consciousness, of assisting the people to understand the civic concerns and interests of the state. To build up a robust sense of social and civic responsibility is a tremendous task for a university, and we are trying to do it without having Harvard or Columbia in the tail of our eye, but with our eye full upon the people of North Carolina, whom we are trying to serve.

The work of the county clubs is illustrated by the activities, for example, of the forty-seven men in the University this year from Johnston County, which is in the very heart of the cotton belt. They are grouped as the Johnston County Club, not for the purpose of having their pictures taken for the college year book, but to study Johnston County. They publish a bulletin containing ten or twelve brief chapters or so, on historical backgrounds, natural resources and opportunities, manufacturing industries, the folks and their social problems, wealth and taxation, farm conditions and practices, school conditions, and so on. One chapter is entitled, "Where Johnston County Lags," and another, "Where Johnston County Leads, and The Way Out." They study their home county, and rank it in nearly 400 different particulars with every other country in the state. They find, for instance, that Johnston County has $270 per inhabitant in automobile wealth, but only $14 per inhabitant invested in public school property; that Johnston County ranks fifth in automobile wealth, but only 98th in public school wealth; or second in cotton production and only 75th in home and farm ownership. These figures are merely illustrative.

Ten such intensive county studies are in print and eighty more are ready for the printers, when the counties get ready to pay the publication costs.

The effect of these bulletins is dynamic. They give the people for the first time a chance to look at their home county in comparison with every other county in the State. These studies give college men an opportunity to relate culture to citizenship and learning to life. They are enabled to climb up and peep over the rim of the campus bowl into the affairs of the big wide world where in a year or two they will rise or fall according to their competent acquaintance with life in the large, and their power of mastery over themselves and the situations that confront them.

The *University News Letter* has brought the people to believe that the University of North Carolina is not thinking first and most about itself, but first and most about North Carolina. The State and the County Clubs, based on the work in the regular courses for college and graduate students in rural economics and sociology, are giving a wholesome publicity to the economic, social and civic problems of the state.

OUTDOOR RELIEF WORK IN LOS ANGELES COUNTY

By D. F. McLAUGHLIN
Assistant Superintendent of Charities of Los Angeles.

THE main phases of the public charities of Los Angeles County are represented by the county hospital, the county farm, and outdoor relief. For the purpose of meeting the outdoor relief needs the county, including the City of Los Angeles, is divided into several sections. The city is divided into four districts. Outside the city is the North Coast District, embracing the Santa Monica Bay region, San Fernando Valley, and the Antelope Valley to the Ventura County line. The Border District embraces the San Gabriel Valley, including Monrovia, Pomona, Azusa and other suburban towns. South Coast or "Shoestring" District embraces the territory of Watts, Compton, Gardena and Inglewood, and suburban towns including San Pedro and Redondo. For Long Beach there is a triangular arrangement between the City of Long Beach, the Long Beach Welfare League and the County Outdoor Relief Division. For Pasadena there is a co-operative arrangement between the City of Pasadena and the Outdoor Relief Division. The outdoor relief for the aged is organized separately under the direction of a supervisor who handles only cases of this type.

The Outdoor Relief Division has fifty-nine employees. Of this number thirty-one are field visitors and ten are student visitors, five conduct the work of the salvage bureau, and the remainder are executives or clerks. During the current fiscal year (revised to June 30, 1921), the total amount of money expended for outdoor relief by the

Division was $536,491.18. Of this sum the total outdoor relief care of children amounted to $236,758.32. This includes both state and county aid. The transportation of indigents back to their home counties in various parts of the United States cost $22,422.00. The cost of administering the entire outdoor relief by the Division was $83,-969.87, or a total overhead of 13.54 per cent.

During the fiscal year (revised to June 30, 1921), the causes of dependency varied widely. Of 4,391 cases in which primary cause was checked, twenty-nine sets of factors were found. These are noted in the accompanying table:

		Per Cent
Accident, general	73	1.7
Accident, industrial	47	1.1
Acute illness	438	10.0
Blindness	80	1.8
Bad housing	10	.2
Chronic disability	586	13.3
Death in family	82	1.9
Death of breadwinner	332	7.5
Desertion	320	7.3
Epilepsy	16	.4
Feeble-mindedness	36	.8
Ignorance of English	5	.1
Illegitimacy	22	5.0
Imprisonment	96	2.2
Insanity	67	1.5
Insufficient employment	859	19.5
Intemperance	7	.2
Maternity	96	2.2
Non-support	121	2.8
Occupational disease	2	.04
Old age	490	11.2
Poorly paid employment	35	.8
Strikes	1	.02
Tendency to beg	21	.5
Tuberculosis	307	7.0
Unemployed ex. ab.	88	2.0

Venereal disease	14	.3
Incompetency	56	1.24
Other causes	84	1.9
	4,391	100.0

On January 10, 1921, one of our visitors was assigned to analyze case records in order to ascertain the number of unemployed among the cases handled, and through this operation we have been able to secure employment for approximately 500 individuals during the last six months. This, accomplished at a time when the unemployment situation is acute, is gratifying.

In the accompanying table it will be seen that insufficient employment is a primary cause in nineteen and one-half per cent of the total cases—normally, in recent years, this cause has operated in about four per cent of the cases.

We are trying to work out a new idea for handling dependent children. Children should not be placed on probation or brought into the juvenile court simply because they are poor. The plan now being tried is one whereby dependent children are removed from the jurisdiction of the juvenile court and placed under the jurisdiction of public aid. Of the 5,062 children who are now under the care of the Outdoor Relief Division, less than one per cent are in institutions and only four and one-half per cent are in foster homes.

Another problem is represented by the indigent "aged couple." A husband and wife who have lived together for years should not be obliged to separate when they are poor and dependent on the state for aid. Our Division endeavors to see that such people are not segregated.

One of the most serious problems is that of the blind. When they come to the Division they are usually unable to work, and are entirely dependent upon the county or state for support. We are teaching them to make furniture

and other useful articles and are preparing them to obtain positions and to make their own living.

Through the salvage bureau, we are teaching women to sew and make their own and their children's clothes; we are teaching them to operate machines, and in other ways helping them to be self-supporting. The education of countless people is far behind their opportunities.

A large amount of poverty is caused by the fact that people are allowed to get into "blind alley" work. For instance, the boys in the messenger service have to work where they can make some money and help pay home expenses, but otherwise they are forgotten and allowed to go their own way, which often leads them into shooting dice in alleys, and to wasting their energies. Waves of industrial unrest are often caused by the fact that there are too many working people who are resting.

The best way for the public to co-operate in helping in relief work in this county is by keeping in touch with our Confidential Exchange, which comprises approximately 38,000 registrations of applicants for relief. Whenever a citizen meets an applicant for relief, he should report to the Confidential Exchange primarily to ascertain if the applicant is already being helped, and also to learn if the Exchange knows anything concerning the applicant's past. By co-operation between the Exchange and the public in general, including teachers, nurses, doctors, dentists, and others, much duplication of effort may be avoided and definite results may be accomplished.

PROBLEMS OF SELF-GOVERNMENT AT THE GEORGE JUNIOR REPUBLIC CHINO, CALIFORNIA

By GEORGE S. SUMNER.

Head of the Department of Economics and Sociology, Pomona College

The George Junior Republic that is located near Chino, California, aims to develop self-control and self-respect in all its citizens. The number of boys averages about eighty —forty to sixty per cent of whom are committed by the Juvenile Court, the remainder being placed in the Republic by parents. The group is selected; the Republic aims to take boys who need what it can give and who can respond to what it can give. Among the handicaps is the fact that courts and parents try to send too many individuals who will not respond and cannot be helped. None are admitted under fourteen years of age and none over eighteen. Special care is taken not to admit any feeble-minded or morons.

The Republic has the most effective school system of its type that there is on the Pacific Coast, with interest in different lines, particularly in agriculture. This school is conducted in connection with the state school system, but with men who are selected because they can contribute, through their special ideals, to better character. The Republic tries to build up self-control and self-respect as a means toward making better citizens. Boys are at the Republic because they have not been able to resist temptation, hence some time is required for them to become good citizens—how long is determined by the character of the individual.

Since the Republic has a system of self-government, the

question immediately arises, What problems of government are the boys able to handle? There are some, of course, that they cannot solve, and it is much better when these are taken care of by the regular Republic officials. These, however, are few in number. With the coming and going of boys the line of demarcation varies. When new boys enter the Republic they feel that some of the problems handled by the officials should be taken care of by the boys, and the classification must be made again. The Junior Republic citizens must have a limited jurisdiction in the same way that citizens of a city are limited. Then the question arises, Who is to judge whether a specific problem comes under the jurisdiction of the boys or of the officials? The boys have compared their laws with the code of the city and state, and have decided that problems which fall under the jurisdiction of the justice or police courts can be settled by themselves, while those which are governed by the higher courts must be settled by the officials.

Any institution that is successful must be a living institution. It must not be too mechanical. It is natural and normal for the boys to want to make changes and they must be allowed to discuss many questions. Very frequently, if left to themselves, they accept the thing they have been objecting to, and sometimes they suggest even better methods than those in operation.

Of what does self-government consist?

1. Passing the laws or ordinances, and repealing those that have become obsolete. A small group of officers among the boys frame most of the legislation and present it at the meetings of the citizens for discussion and changes, with the result that it is usually accepted as presented.

2. Choosing the officers. It is not necessarily the most popular boy who makes the best officer, because sometimes he has not reached the point where he can control

himself, not to mention the problem of controlling others. But the officials must allow the boys to elect their own officers. If two boys are nominated and the officials know that one has found himself and the other one has not, it would be an easy matter for them to carry the election for the superior lad. But they dare not do it; they must not seem to be forcing their choices. They must at all times be willing to give advice, but must not dictate. They know if the wrong man is elected the boys will soon find him out and remove him. The boys have their own methods of acting.

3. Managing the court. The court at the Republic is interesting, because a boy acts as judge and boys serve as jurors when trials are called. Cases are taken very seriously. Of course, a poor judge usually brings about a poor series of decisions, and a good judge, a good series of decisions. Hence it is necessary to allow an appeal. There are two possible appeals: (a) appeal to the officials and the instructors at the Republic, and (b) appeal to the high or supreme court, selected from the board of trustees of the Republic. There has never been a case appealed to the supreme court in the eight years I have been on it. However, as one of the boys explained, "The Supreme Court is distinctly worth while in that we feel that there is somebody outside of the immediate Republic to appeal to, who won't have any of the prejudices that we have in the cases."

In conclusion, let us note four things:

1. We must remember that the Republic is not an end—it is simply a means to an end. It is one of the institutions that ought to aid in the development of character, leadership, and self-control.

2. There are times of disappointment, when the plan does not seem to be working; then it seems almost impossible not to exercise a strong hand of control.

3. We must bear in mind the importance of variety. We must not let things get in a rut; the government must be kept vital.

4. We must definitely remember that there is a place in the system of self-government for the older person, the mature man of experience. This place is filled by the boy's counsellor, the official, or the instructor. He may disrupt the government in a few weeks' time or he may greatly assist the government.

We feel much encouraged, for unquestionably a great deal has been accomplished for the Republic boys. The record is one to point to with pride, despite the fact that there are periods of a few months when things have gone badly. We feel satisfied that the Republic will be more and more effective, because we now have a select group of boys who, we think, can respond to what we have to give. We believe, further, that relating the training work in the Republic to the state educational system has been a good thing, not only for the boys, but also in demonstrating the possibilities of agricultural and industrial specialization in a "twenty-four hour school."

SCIENCE CONFERENCE

THE ORGANISM AND ITS ENVIRONMENT

FRANCIS B. SUMNER,
Scripps Institution for Biological Research, La Jolla, California.

DESPITE the apparent unrelatedness of its diverse lines of investigation on sea and land, the Scripps Institution has held fast to one guiding principle or unifying idea. This is a recognition of the urgency of studies upon the relation of organism and environment. Not that this idea is the peculair property of the Scripps Institution or of any other particular group of workers in biology. It furnishes the chief subject matter for the modern science of ecology; it plays a prominent part in the study of geographic distribution and geographic variation, and it has dominated much of the experimental work in biology during the past thirty years or more.

The differences—so far as there are any—between our guiding principles at La Jolla and those adopted by biologists elsewhere, are differences of emphasis. We tend to stress the environment. In most of our biological work, seasonal, geographic, physical and other environmental factors are kept in the foreground, while part of our program consists in the measurement and description of some of these factors, without any immediate reference to their biological bearings. Another distinctive feature of our work—for which again we claim no high degree of uniqueness or originality— is an insistence upon the necessity of combining field and laboratory work for the solution of

many of the more vital problems of biology. Here again you will note the underlying assumption that the organism—the real organism, which lives and grows, and functions and acts, and in some cases thinks,—is not an isolated phenomenon in nature, but is part of a complex system of interacting forces. It is utterly unintelligible, indeed we shall see presently that it does not even exist, except in organic relation to the outer world. This insistence upon keeping intact the organism-environment complex as an object of study, is an important element of our director's biological philosophy, which deplores the prevailing dominance of differentiation and analysis over intergration and synthesis as methods of scientific research.

Various recent trends in biological discovery and speculation have led to an over-emphasis of the organism, as a distinct and independent entity; and this habit of mind has doubtless been confirmed by the proneness of most of us to adopt fashions in thinking as well as in clothing. Likewise, the inevitable increase of specialization in all fields of science has tended to separate and to keep apart those whose studies relate chiefly to the isolated organism from those concerned primarily with its conditions of life and occurrence in nature. It is possible that these tendencies have reached their zenith, and that the movement toward a greater measure of integration in biology is already under way. But a perusal of the writings of those who form the "dominant" groups at the present time does not furnish much ground for this belief.

Let me be somewhat more concrete in regard to the causes which have led to this relative neglect of the environment by present-day biologists. Morphology has for years, and perhaps unavoidably, confined itself to the study of preserved organisms, or more frequently of the excised organs or tissues of organisms. Physiology—when it has broken away from medical bondage and asserted

its rights as an independent science—has commonly studied the activities of animals or plants, or isolated parts thereof, under strictly "controlled," i. e., highly unnatural conditions. Taxonomy has dealt with collections of stuffed, pickled, pressed or otherwise preserved material. There has frequently been a rigid division of labor between the collector, who gathers and preserves the specimens, and observes them in nature, and the systematist, who studies and classifies them in his laboratory or museum, without such clues as are afforded by a knowledge of their local distribution, seasonal occurrence, life history, etc.

When we come to my own special field of genetics, this apotheosis of the organism and relative neglect of environmental factors is particularly evident. Strictly speaking, it is not even the organism here which is exalted into this position of well-nigh exclusive interest. It is that more or less imaginary entity, the "germ-plasm," which is conceived to flow on through the ages as an uninterrupted "stream," giving rise, at intervals, to ephemeral and relatively unimportant objects, the bodies of the individual organisms. Within broad limits, this "germ-plasm" is not supposed to be affected by the environment at all. It may, it is true, be killed by lack of food, extremes of temperature, or the like, or a particular "stream" of germ-plasm may at any time be brought to an untimely end by its failure to produce individuals which are adapted to their special conditions of life. But, aside from this process of selective elimination, the environment is not credited with the power of calling forth adaptive changes of hereditary nature. Furthermore, many biologists are at present dubious as to whether environmental influences are capable of producing germinal changes of any sort, even those which result in the "mutations" upon which selection is supposed to act.

The great volume and the high importance of researches

in Mendelian heredity during the past two decades have lead to a virtual identification of genetics with Mendelism. This statement applies not only to the rather confused notions of the layman, but to the deliberate utterances of the expert, who sometimes explicitly defines the word genetics in this restricted sense. Now Mendelism, as we all know, is concerned with the mode of transmission of certain more or less distinguishable "unit-characters" of the organism. These last, in turn, are supposed to be the visible manifestations of independent, indivisible, and in a high degree unalterable "factors" in the germinal substance. Occasional instances are cited, to be sure, in which particular unit characters depend for their manifestation upon particular conditions of the environment, and certain geneticists believe—as an article of faith— that unit factors may undergo "mutation" as the result of sufficiently potent changes in the external conditions. But, on the whole, the general effect of Mendelian studies has been to emphasize the isolation and independence of the organism —or at least, of its unit factors— and to minimize the importance of the environment, except as imposing limiting conditions to existence or growth.

After more than a generation of stalwart drubbing, Lamarckism is believed by most biologists to have yielded to the inevitable and to have gone to its last repose in an unhallowed grave. Not only are individual acquirements believed to be incapable of hereditary transmission, but for man at least, the role of external circumstances in the development of both body and mind, during the single lifetime, is frequently denied any very high importance. Environment—the "culture-medium"—must furnish a certain low minimum of requirements for normal development. Beyond that, it is impotent to alter the preordained course of the individual life history.

The foregoing picture is not intended primarily as an

indictment of present-day biological philosophy. My chief object has been to point out some of the reasons for the relative neglect of the natural environment as an object of recent biological research. That the prevailing viewpoint which I have outlined above, is largely founded upon exact knowledge must, I believe, be admitted. That it represents an extreme position, and overlooks important lines of evidence, is to some of us equally clear. While I cannot here enter into an extended justification of this last contention, I feel bound to indicate rather briefly the sort of facts upon which it is based.

In the first place, one cannot overlook the utter bankruptcy of the Mendelian-Mutation scheme of things to account for evolution, and particularly to account for the origin of adaptive structures and functions. Hereditary differences among organisms, according to this theory, depend upon the presence, in their respective "germplasms," of somewhat different unit factors. Every natural species and most artificial races are known to be far from homogeneous in their hereditary make-up. As the result of selection—natural or artificial—individuals carrying certain favorable factor combinations may be perpetuated to the exclusion of others. As long as this process of sorting out is possible, the average character of the race may be altered in one direction or another. Sooner or later, however, we reach a condition in which all members of our selected strain possess the particular factor combination that insures the highest possible manifestation of the character for which we are selecting. In respect to these particular factors, our material has become homogeneous, and further progress along this line must cease.

Now, as a matter of fact, we all know that in some cases such progress has been continued indefinitely. We may point to abundant instances from nature in which a tendency, once started, has been continued throughout

ages of geologic time. The reduction of the lateral toes of the horse's foot is an often cited example, which is as good as any. Certain breeding experiments, likewise, have shown the possibility of continuous modification throughout many generations. In some instances, this has occurred among the cultures of those who insist most strongly upon the truth of the "sorting out" conception of selection. Occasionally, too, there seems to be a sudden revival of the efficacy of the selective process, some generations after stability seemed to have been reached.

We are all familiar with the current explanation of these phenomena. Effective selection, in a race which has become homegeneous in respect to the factors concerned, is only possible through the occurrence of "mutations" or spontaneous changes in these factors. If such changes chance to occur in the same direction as the changes which were initiated by our selective process, the latter is given a new lease of life, until a condition of racial uniformity is once more established. It is well to consider for a moment where such a conception leads us. There would seem to be nothing particularly mysterious in the fact that a race of organisms should undergo continuous changes in a given direction, as a result of "mutations" arising without any reference to environmental needs. Progressive changes are going on all about us in the inorganic world, some of these continuing for untold periods of time. What does need explaining is the fact that these changes, in the organic world, are so often in the direction of increasing adjustment to the conditions of life. Darwin's explanation of this fact—one which he felt obliged to supplement by another quite different explanation—is known to us as the theory of natural selection.

At the present day, there are probably as many estimates of the effectiveness of natural selection as there are biologists who are competent to express an opinion on the sub-

ject. All are probably agreed that it must be regarded as one of the factors of evolution. But most recent biologists are strongly impressed by various considerations which were either unknown to Darwin or were probably not sufficiently recognized by him. In the time allotted I can speak of only one of these. This is the inadequate supply of variations which are actually available for the selective process. At a time when most individual differences were believed to be more or less hereditary, and when practically no bounds had been set to the efficacy of the selective process, it was much easier to assert the "all sufficiency" of this principle as the cause of progressive evolution. Even then, it must be remembered, there were many who denied the possibility that wholly random variations could furnish an adequate basis for evolution through natural selection. In recent years, this difficulty has been magnified many fold. A large part of the variability of organisms, including many differences of survival value in the struggle for existence, are believed to be "somatic" or "phenotypic"—that is to say, non-hereditary. So much of the variability as is found to be inheritable is attributed to the action of relatively small numbers of unit-factors, which can be readily, and rather speedily, segregated in particular descent lines, if the degree of selection is rigid enough. Thus a very limited amount of permanent modification may be brought about fairly promptly. After that, we are forced to wait for the decidedly capricious process of mutation to help us farther along the road.

One having a limited acquaintance with the discoveries of Morgan and his co-workers might be disposed to exclaim at this point: That is easy! New mutations are coming to light every day in the case of *Drosophila*. Would not this prove to be true with every race of organisms, if studied intensively?

I fear that such persons are leaning on a very frail reed.

When we examine into the nature of these mutations of the fruit-fly, we find very little promising material for a theory of progressive evolution. Many of them are obvious deformities and abnormalities, not only in the sense of being departures from the typical condition, but in the sense of rendering the insects unfitted for life in nature. The body may be warped, the wings so abbreviated as to be useless, the legs duplicated or greatly shortened, the eyes reduced in size or suppressed altogether. Many of the mutant factors described by these authors belong to the class known as "lethals." That is to say, their presence in a homozygous condition results in the death—or failure to appear—of all the organisms so affected. Indeed, most of the mutant strains are distinctly less hardy, or more difficult to raise, than are flies of the wild type. The best that can be said for any of the modifications thus far appearing is that they are harmless to the organism. Those which are not positively deleterious consist in changes in the color of the body or eyes, in the number or form of bristles of the thorax, and other trivial departures from the normal condition. So far as I know, not a single one of these mutations— and there are some two hundred of them described—can be said to represent a better adapted type of organism. With a very few exceptions, they consist in obvious losses of structures or materials previously present.

We are not, of course, warranted in concluding from this that mutations of evolutionary value never occur. It is quite possible that they do. But what we actually know at present regarding such mutations as occur in our breeding cultures affords no safe ground for the belief that evolution has come about through the accumulation of these by natural selection. This belief seems particularly difficult in the case of very slow-breeding animals, such as the elephant, which have none the less undergone enor-

mous structural modifications during relatively brief periods in the earth's history.

Here then is one difficult situation in which we find ourselves, if we follow the lead of the majority group of biologists in denying any positive effectiveness to the environment as an agency in evolution. Are we not brought back to a view point similar to that of Naegeli, who held "that animals and plants would have developed about as they have even had no struggle for existence taken place, and the climate and geologic conditions . . . been quite different from what they actually have been?"[1] According to Naegeli, the environment has had merely a pruning effect upon the tree of life, eliminating certain branches and permitting certain others to grow. If this be the truth, we must of course, accept it. But we should accept it on evidence, and not on authority.

That the environment may have had a far more positive influence upon evolution than is admitted by the Mendelian-Mutationist school of biology is further rendered probable by certain recent experiments. I refer particularly to the remarkable work of Guyer and Smith upon the inheritance of artificially induced eye defects in rabbits. The studies of these authors seems to prove conclusively that one particular class, at least, of acquired characters may be transmitted indefinitely from one generation to the next. And the mechanism by which these acquired characters seem to have been registered in the germ-cells is of a type which is conceivably operative on a large scale throughout the living world. I am waiting with interest to see in just what manner the results of these remarkable experiments will be explained away or robbed of their significance for biological theory.

Another field in which this depreciative attitude toward the power of environment is at present conspicious is that

[1] Kellog, *Darwinism To-Day*, p. 278.

of eugenics and the study of character formation in man. Since I have recently prepared a special article on this subject,[2] I shall take the liberty of quoting rather extensively from this. My first object in the article referred to was to point out the very general confusion which exists regarding the relations between heredity and environment in human development.

"Every 'character' (whether we mean by this word a bodily part or organ, or a trait or mental disposition) has a hereditary basis. Likewise, every character is due, in its final state, to the interaction of this hereditary basis with other parts of the developing body, and with the sum-total of external conditions, physical and biological, which we call the 'environment' of the organism.

"However, it seems quite proper to speak of *differences* between two organisms as due solely to heredity or solely to environment. Thus plants of different stock, reared under identical environments, might differ greatly in size or in other respects. These differences would be of purely germinal origin. On the other hand, two plants of identical heredity might be reared in different soils and come to differ widely in size or otherwise. Such differences would be purely environmental.

". . . The familiar question, Which is the more important, heredity or environment? is not capable of answer when stated in that form. One might as well ask: Which are the more important in the construction of a house, the building materials or the carpenters? We may, however, as just indicated, frame the question in another way: Are the *differences* which we observe among our fellow men due chiefly to *differences* of heredity or to *differences* of environment, using the last term in its broadest sense? Even here, we must be more explicit. Do we

[2]Heredity, Environment and Responsibility. Scripps Institution Bulletin No. 10, published July 2, 1921.

refer to the differences between the white man, the Chinaman and the Negro, or do we refer to the differences which we observe among individuals of the same race? The differences between the various races would be granted by most persons to be hereditary. But the differences within a given race are regarded by many as being due, in a large degree, to the circumstances of life—to feeding, home surroundings and "bringing up." This is claimed particularly for the mental and moral characteristics.

"Francis Galton after reviewing the evidence derived from the study of identical twins, thus expresses his belief regarding the relative potency of heredity and environment in determining human differences: 'There is no escape from the conclusion that nature prevails enormously over nurture, when differences of nurture do not exceed what is commonly to be found among persons of the same rank in society and in the same country.'

"And truly, I do not see how we can escape this conclusion, if we bear in mind Galton's reservation. . . .

"I think it likely, however, that many recent geneticists, especially some of those who are active in the eugenics movement, would throw out Galton's reservation and insist that 'nature prevails enormously over nurture' in determining the mental and moral differences among an entire population, regardless of its social strata.

"The opposite, or 'environmentalist' philosophy, in its extreme form, would assert that almost any individual may be given almost any type of physique, intellect, or moral character, if taken sufficiently early and subjected to a proper regimen during the period of growth and character formation. . . . . .

"It is my own belief that the scientific geneticists and eugenicists are much nearer the truth than the mere undisciplined lovers of mankind, but that they have been led into a somewhat extreme position by their efforts to

square the facts of life with certain biological theories. Now there are various considerations of a strictly scientific nature which would seem to establish the presumption that non-genetic factors in the formation of human character should be given more weight than is frequently accorded them by biologists."

The time at my disposal does not permit of an adequate discussion of these considerations. I shall restrict myself to a brief mention of one of them. This is the probability, admitted by most biologists, that civilized man has undergone little if any improvement in his inherent mental make-up since the dawn of history.

While it is not necessary to admit such extreme claims as have been made by some biologists, "I think there is no escape from the conclusion that mankind, or the civilized part of it, has made *little* advance in potential brain power during the entire period of history—little in comparison with his racial achievements in science, philosophy, art, invention, morals, etc. In other words, human progress has been extrinsic rather than intrinsic. We have built up an enormously complex world of racial acquirements, consisting of customs, laws, and knowledge, as well as all the physical paraphernalia of civilization."

Thus, "if it is really true, that the average innate brain power of mankind has not increased since paleolithic times, the higher mental status of the modern man is due solely to a fuller development in each of our lives of potentialities which were present in the man of the Old Stone Age. This, of course, is but another way of saying that even such enormous differences as distinguish a Cro-Magnon cave-dweller from a modern European are wholly environmental."

It may be worth while, in the interests of clear thinking, to undertake an analysis of this distinction which we are so prone to draw between organism and environment.

How far is this antithesis a real one, and how far is it a mere matter of convenience? Let us consider this question, first of all, in its bearing upon the science of genetics.

The sum-total of causal agencies which result in the production of a complete organism from a fertilized ovum are commonly grouped under two heads: (a) the material constitution of the fertilized ovum itself, particularly of its chromosomes; and (b) external influences which act upon the developing organism, from the moment of fertilization to the close of the life cycle. This classification corresponds in the main to the familiar antithesis between heredity and environment, nature and nurture. As a matter of fact, the distinction thus drawn is largely a chronological one, the influences acting before fertilization being lumped together along with "nature," those acting after that event being assigned to "nurture." If we insist that heredity relates only to the "intrinsic" factors in the situation—to the material constitution of the "germ-plasm" independent of environmental influences at *any* period—it seems to me that we are dealing with something purely imaginary. There never is a period in the history of the germ-cells or their forerunners when they are not vitally dependent upon their living environment. Every step in their history involves an interaction between certain factors which may be called "intrinsic" and other factors which are external to these. What is "intrinsic" at one moment may have been "extrinsic" the moment before. Whether this relation is of a type which makes possible the form of inheritance assumed by Lamarck is a question which we need not consider at present. I merely wish to point out that no hard and fast distinction can be drawn between heredity and environment as conditioning the life of an organism. The distinction is largely one of chronology, and the moment of demarcation between the two must be chosen rather arbitrarily. In practice, to be

sure, the distinction implied by these words is in the highest degree useful. But we should not imagine that is is an absolute one.

It may be of interest to carry this analysis a step farther. I am prepared to defend the somewhat paradoxical thesis that the organism and its environment constitute an inseparable whole; that if we could detach all environmental elements from this complex there would be no organism left. Nor do I intend this as a mere bit of Hegelian dialectic. A moment's reflection serves to show that we can draw no sharp line of division, not even a theoretical one, between the two.

If I should ask you whether the nest of a bird constituted a part of the organism or a part of its environment, I presume that every one present would resent the question as an insult to his intelligence. Nor would there probably be any hesitation if the question related to the patch-work dwelling of a caddis-worm, even though this dwelling is carried around by the larval insect, as if it were an integral part of its body.

The situation becomes somewhat less clear when we consider the calcareous tube of a marine annelid. Here is something which is definitely secreted by the epidermal cells of the organism, and which forms a sort of permanent integument. It does not, however, in this case, retain any organic connection with the body of the worm. But when we pass to the shell of a mollusk we find that there is such an organic connection with the body, so that the animal cannot be dislodged without extensive injury to its living tissues. Moreover, the purely mineral ingredients of the shell are sandwiched in between layers of a substance which we commonly speak of as "organic," though not in this case as living. Does such a shell belong to the organism or to its environment?

If there be any doubt in the case of the mollusk, let us

consider the bony carapace of the tortoise. This, likewise, is composed in part of mineral salts, in part of equally lifeless "organic" materials, produced through the metabolism of living matter. But in addition to these lifeless elements, we here encounter a multitude of living cells contained in minute spaces scattered throughout the bony substance; and even blood-vessels and nerves, which provide for the nutrition and growth of these cells. All persons would probably agree that such an exoskeleton belongs to the creature's body.

Let us pass next to a consideration of the internal fluids which are concerned with distributing food and oxygen to the living tissues and with carrying away their waste products. Perhaps a reversal of the order previously followed would here be instructive. In the case of vertebrates, the blood is itself commonly classed among the tissues of the body. Cells of several kinds are present, along with a fluid, intercellular matrix consisting, in large part, of proteid substance, approaching in complexity those which compose the "protoplasm" of the living cells.

Among the mammals, the blood maintains a high degree of constancy in its composition, regardless of changes in the external medium. A seal or a porpoise may pass from fresh to salt water, or vice-versa, without undergoing any change in the concentration of the blood. This is not true, however, of the fishes. Those which are capable of living equally well in fresh and salt water show a higher salt content in the latter than in the former.

Now among fishes—or at least the bony fishes—this concentration of salts in the blood is not proportional to that of the water in which they happen to be. But the case is quite different with many marine invertebrates. As a result of osmosis and diffusion both the concentration and composition of the salts in the body fluids of such animals is rapidly brought into conformity with that of the water

in which they are placed.

In the coelenterates, it is well known that the gastrovascular cavities and their contained fluids are in open connection with the surrounding ocean, while in the sponges the only circulating medium is the sea-water itself, which is propelled through multitudinous canals by the motion of the flagella. Once more, is it not obvious that the distinction between organism and environment is a conventional and arbitrary one?

This line of argument would be quite incomplete without reference to the transformations which constitute that most characteristic process of living matter, metabolism. Unfortunately, my limited knowledge of biochemistry would not make it possible for me to discuss this subject adequately even if my allotment of time permitted. But even such slight knowledge as I do possess enables me to assert with confidence that there is no definite point in the process at which we can say for the first time: "This is no longer food: it has become living matter." Nor, on the descending phase of the metabolic cycle, is it possible to distinguish the moment at which the living passes over into the non-living. But food and waste matters belong to the environment. They can hardly be regarded as parts of the organism. In short, the organism and the environment interpenetrate one another through and through. The distinction between them—let me repeat—is only a matter of practical convenience. Should not such considerations affect our attitude toward the propriety of ignoring the environment as an object of biological research?

Professor Ulrey has asked me to include in this paper some account of the work of the Scripps Institution. I have already indicated, at the very outset, some of our guiding principles. In the few minutes left to me—if I have not already exhausted my time and your patience—I

will summarize briefly the lines of study which have been followed at La Jolla. This account I feel justified in thus abridging, since it is my understanding that my colleague, Professor Esterly, has been asked to lead the discussion of my paper, and he is far more competent to report upon the marine work of the station than I am.

Our total scientific output results from the labors of two chief classes of persons, the resident staff and the visiting biologists, though we must not omit the small but important third class of non-resident members of our staff, represented by Dr. Esterly. The visitors come from all parts of this country, and occasionally from Europe. Their work is very diverse and bears no necessary connection with the program of the station.

The activities of the regular staff fall into two natural divisions, those concerned with marine and terrestrial life respectively. Since the marine work had priority historically, and since it occupies the attention of a larger number of investigators, it is rather widely believed that the Scripps Institution is exclusively a marine station.

To subdivide, in turn, these marine studies, we must distinguish the investigations of Messrs. McEwen and Cummings, which are concerned with physical oceanography, and those of certain of our biologists, who are occupied primarily with the plankton.

Our oceanographers are engaged in measuring and describing various physical factors of the neighboring sea areas, and formulating principles which may be of service in explaining the occurrence and distribution of marine organisms, and possibly in interpreting certain features of our California climate. Incidentally, Dr. McEwen, along with the late Mr. Michael, has devoted much time to the development of statistical methods, applicable to these distribution studies.

The plankton investigations have been conducted by

Dr. Ritter himself, by Mr. Michael, Dr. Esterly, Mr. Allen, Dr. Essenberg and some others, including Professor Kofold and various of his students from the department of zoology of the University of California. Even to summarize the important results of these studies is quite impossible here. I am hopeful that Dr. Esterly will supplement my own account in this respect. Let me merely point out, however, two or three distinctive features of this program. In the first place, most of it has been rigidly quantitative, requiring, in some cases, refined statistical treatment for which special methods have been devised. And it may be mentioned at this point that quantitative methods are characteristic of most of the work of the Institution. In the second place, the marine program has been concerned in a high degree with the relations between the organisms and various physical factors of the environment. In the third place, it has been supplemented by laboratory experiments, directed toward ascertaining the actual reactions of particular organisms to particular physical factors. (Here belong the more recent studies of Dr. Esterly.)

Before leaving the marine work, mention must be made of the researches of Mr. Crandall and Dr. Brandt upon the distribution, growth and propagation of the kelps. These were undertaken primarily owing to their economic bearings but have necessarily brought to light facts of scientific interest.

The land work has thus far been restricted to one group of organisms, the mice of the genus *Peromyscus*. My assistants and I have trapped many thousands of these animals in various parts of California and raised many thousands more in our mouse building and pens. Our main objects have been various. Some of these objects have been: (1) to subject numerous geographic races to precise statistical treatment with a view to ascertaining

the differences which distinguish them; (2) to determine whether any of these local differences are correlated with differences of environment; (3) to learn whether these racial differences persist after radical changes of environment; (4) to determine whether they depend upon hereditary "unit factors," in the Mendelian sense; and as a means to this end (5) to learn the behavior of these subspecies when crossed with one other; (6) to study the various "mutations" which have appeared among our cultures. Our conclusions upon these subjects have appeared in various recent papers. I am sure that you will appreciate my reasons for omitting any discussion of them at this stage of the program.

In conclusion, I cannot avoid mention of the activities of various members of our staff in the direction of interpreting the data of biology, both to biologists themselves and to the general public. The philosophical books and articles of Professor Ritter and the newspaper articles of Mr. Allen are particularly to be included in this connection.

APPENDIX

DESCRIPTION OF THE ORGAN*

The Robert Morton Company of Van Nuys, Builders

PEDAL ORGAN

Resultant Bass	32′		32 Notes
Bombarde	32′		56 Pipes
Double Open Diapason	32′	Extension from Great 16′	12 "
Open Diapason	16′		44 "
Bourdon	16′		44 "
Echo Bourdon	16′		32 "
Lieblich	16′	from SW Bourdon	32 Notes
Violone	16′	from Great	32 "
Contra Viole	16′	from Choir	32 "
Fagotto	16′	from Swell	32 "
Trombone	16′	from No. 2 Pedal	32 "
Principal	8′	from No. 4 Pedal	32 "
Flute	8′	from No. 5 Pedal	32 "
Cello	8′	from Solo Gamba and Gamba Celeste	32 "
Dulciana	8′	from Choir No. 106	32 "
Trumpet	8′	from No. 2 Pedal	32 "
Flute	4′	from No. 5 Pedal	
Compensating Mixture			80 Pipes

GREAT ORGAN

Enclosed with the Choir Organ.

Double Open Diapason	16′ 73 Pipes	Octave	4′ 73 "
First Open Diapason	8′ 73 "	Wald Flute	4′ 73 "
Second Open Diapason	8′ 73 "	Flageolet	2′ 61 "
Third Open Diapason	8′ 73 "	Mixture V Ranks	305 "
Doppel Flute	8′ 73 "	Double Trumpet	16′ 73 "
Viola	8′ 73 "	Trumpet	8′ 73 "
Melodia	8′ 73 "	Clarion	4′ 73 "
Erzahler	8′ 73 "		

CHOIR ORGAN, 73 Notes.

Enclosed in Swell Box with Great Organ.

Contra Viole	16′ 73 Pipes	Quintadena	8′ 73 "
Geigen Principal	8′ 73 "	Flute	4′ 73 "
Concerte Flute	8′ 73 "	Nazard	2⅔′61 "
Flute Celeste	8′ 61 "	Piccolo	2′ 61 "
Dulciana	8′ 73 "		

SOLO ORGAN

In Separate Swell Box.

Saxaphone	8′ 73 Pipes	Stentorphone	8′ 73 "
Gross Flute	8′ 73 "	Tuba	8′ 73 "
Gamba	8′ 73 "	Clarinet	8′ 73 "
Gamba Celeste	8′ 73 "	Orchestral Oboe	8′ 73 "
French Horn	8′ 73 "	Harp	49 Bars with Resonators
English Horn	8′ 73 "	Chimes	20 Tubular Bells

*See also Previous Statement, p. 33.

SWELL ORGAN

Enclosed in Separate Swell Box.

Bourdon	16′	73 Pipes	Violin	4′	73 "
Open Diapason	8′	73 "	Harmonic Flute	4′	73 "
Horn Diapason	8′	73 "	Piccolo	2′	61 "
Salicional	8′	73 "	Cornet III Ranks		183 "
Aeoline	8′	73 "	Contra Fagotto	16′	73 "
Celeste, Tenor C	8′	61 "	Cornopean	8′	73 "
Viol D' Orchestre	8′	73 "	Flugel Horn	8′	73 "
Viola Celeste	8′	61 "	Oboe	8′	73 "
Stopped Diapason	8′	73 "	Clarion	4′	73 "
Clarabella	8′	73 "	Vox Humana	8′	73 "
Gemshorn	8′	73 "			

ECHO ORGAN, 61 Notes

Played from Solo Keys and affected by
Solo Couplers and Solo Swell Shoe

Cor de Nuit	8′	61 Pipes	Zauber Flute	4′	61 "
Muted Viole	8′	61 "	Vox Humana	8′	61 "
Viole Celeste, Tenor C	8′	49 "			

COUPLERS

Pedal Octave
Great to Pedal
Choir Sub to Great
Choir to Great
Choir Sub
Choir Octave
Swell to Pedal
Swell Octave to Pedal
Solo and Echo to Pedal
Choir to Pedal
Great Unison
Great Sub

Great Octave
Swell Sub to Great
Swell to Great
Swell Octave to Great
Choir Octave to Great
Solo Sub to Great
Solo to Great
Solo Octave to Great
Swell Unison
Swell Sub
Swell Octave
Choir to Swell

Solo to Swell
Choir Unison
Swell to Choir
Swell Sub to Choir
Swell Octave to Choir
Solo to Choir
Solo Sub
Solo Unison
Solo Octave
Echo on, Solo off
Universal on and off

COMBINATION PISTONS

Six manual pistons affecting stops and couplers of Solo and Echo organs
Eight " " " " " " " Great organ
Eight " " " " " " " Swell organ
Eight " " " " " " " Choir organ
Six Pedal " " " " " " Pedal organ
Eight general pistons affecting entire organ.
Solo pistons to Pedal Pistons, Swell postons to Pedal pistons.
Great pistons to pedal pistons. Choir pistons to pedal pistons.
Chimes forte and piano.
Swell, Great, Solo, Choir and Echo tremulants.

PEDAL MOVEMENTS

Balanced Solo and Echo pedal with indicator.
Balanced Swell pedal with indicator
Balanced Great and Choir pedal with indicator.
Balanced Crescendo pedal with indicator.
Locking pedal throwing choir shutters to Solo pedal.
Locking pedal disconnecting the intermanual couplers from Crescendo pedal.
Great to pedal reversible.
Solo to Great reversible.
Sforzando pedal with light indicator.
Locking pedal connecting all Swell boxes to Swell pedal.

SUMMARY

Pedal Organ	18 stops	268 pipes	Couplers		35
Great Organ	15 "	1315 "	Pistons		49
Swell Organ	21 "	1607 "	Tremulants		5
Choir Organ	13 "	836 "	Pedal Movements		10
Solo Organ	8 "	584 "			
Echo Organ	5 "	293 "	Total Movements		179
Total	80 "	4903 "			

Jesse Ray Miller
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